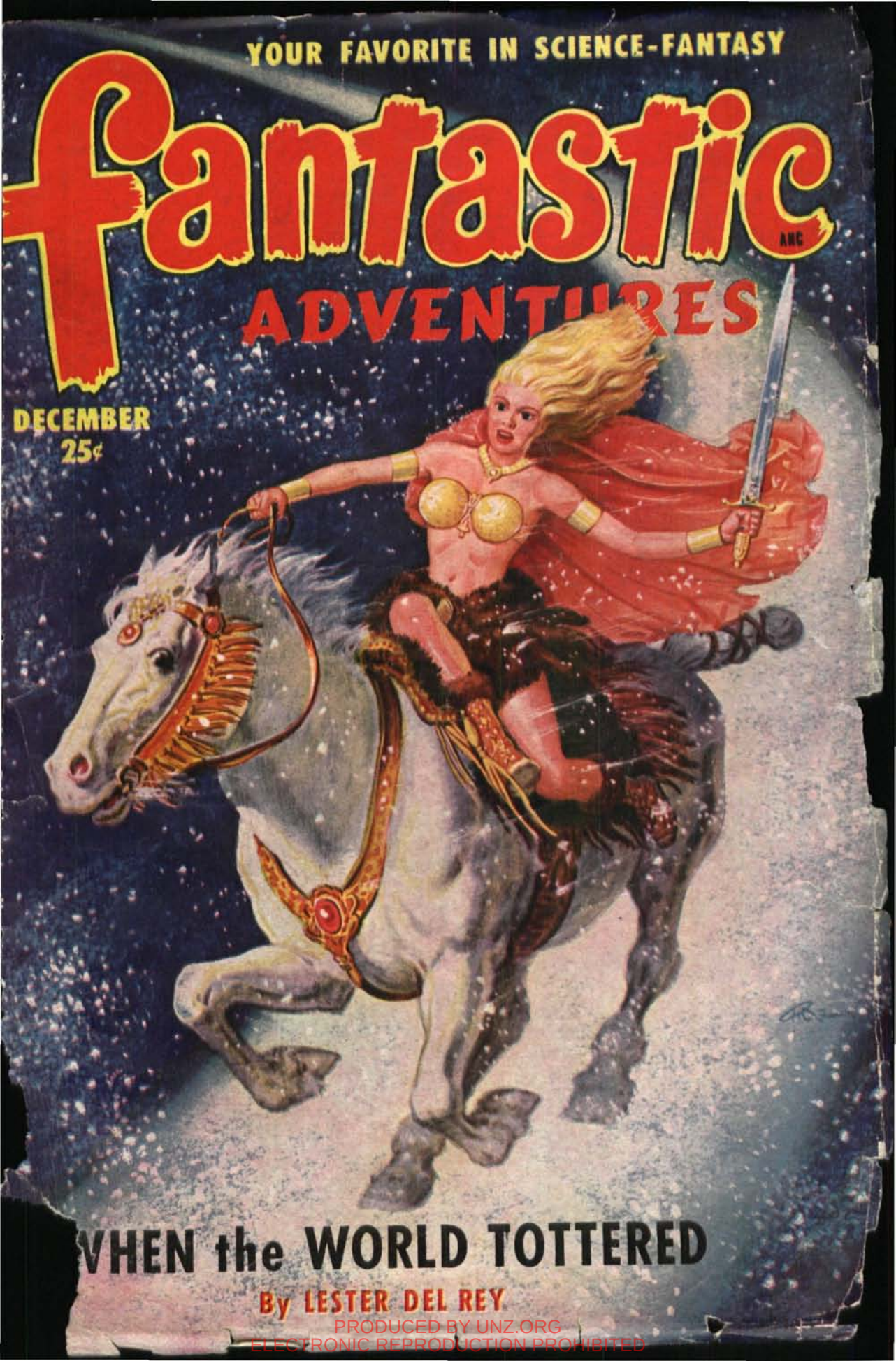


PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Ruthless vengeance — hate — love and raw passion . . . these emotions ruled the men and women who braved the open ranges of the great American West.

You'll join in the action—thrill to the danger—smell the gunsmoke and share the glory of the outriders who helped mold a mighty nation with sweat and blood and hot lead . . . Read, every month

MAMMOTH WESTERN

All Stories Complete — by Leading Writers

TOPS IN WESTERN FICTION

ON SALE AT YOUR NEWSSTAND NOW!

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Editor's Notebook

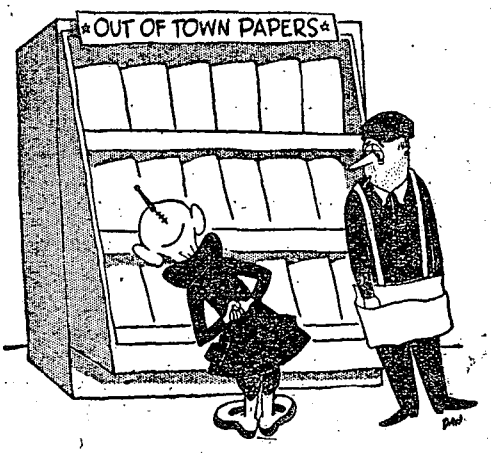
A CONFIDENTIAL CHAT WITH THE EDITOR

PROBABLY the greatest single distinction the science-fantasy field has achieved lies in the fact that its readers, over a period of years, have united in a nationwide fan organization. It is true that all of the readers and lovers of science-fantasy do not take active part in the fan doings, but in one way or another the great majority have some contact with the general fan world.

TAKE THE recent World's Science Fiction Convention held in Portland, Oregon. While we could not find time to attend the festivities ourselves, glowing accounts of the success of the Convention have been told us by fans and writers passing through Chicago on their way home. We'd like to take this opportunity to say that we're very proud of the record the fan movement has achieved, and know that each and every year will be but one more laurel to that record.

ALONG THESE lines we were very interested in hearing what one of the top writers in the field had to say on his stopover in Chicago. We lunched with Ted Sturgeon the other day, and Ted told us that one of the major developments that the Convention fathered is the newly proposed FWA (Fantasy Writers of America).

THIS NEW organization in the stf field will be one aimed at uniting all of the writers into a well knit organization, much as the general fan world, but in this case it will be professional venture.



Ted outlined a few of the principal aims of the FWA. They include a further promotion of the field itself, along with the general fan world, and, of course, since the members will be professional writers, the bettering of the economic conditions in the science-fantasy writing field.

AS YET THERE isn't a great deal we can report on the FWA, but we understand that plans are already being outlined for an early developing program. Ted Sturgeon, as acting Chairman, promised us further news at the earliest opportunity.

NATURALLY we didn't let Ted's visit pass without a not too gentle hint that the readers of FA would like to see more of his fine work in the near future. (Ted's novel, "The Dreaming Jewels", published in the February, 1950 FA, is now in book form.) Before Ted left town he promised to have some fine new stories on our desk in the very near future. Which is combining business with pleasure!

WE HAD ANOTHER visitor passing through town a few days ago. Top favorite Geoff St. Reynard, who, as all of you know is that up and coming serious novelist, Robert W. Krepps, stopped in to see us on his way to Los Angeles where he plans to relax and catch up on his sunshine and orange juice. We didn't have to ask Geoff to do us a new story—he walked in and handed us a long cover story! All of which pleased us very much—as you will be when you read it in an early issue of FA.

WE LEARNED one interesting thing from Geoff in relation to his writing. On his recent "Mistress of the Djinn" he spent two solid months doing research for the novel, studying everything from the conventional history books, to the Koran. And he said that the new story he had just completed, with an Egyptian background, required a great deal of research also.

ALL OF WHICH goes to show you that our writers work hard at their trade, and do everything they can to make a story factual as well as entertaining. This is as it should be, for things like that go into making a really good writer. And we modestly add that we do our best to discover such talent—for your reading pleasure. . . . . .WLH

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

DECEMBER 1950

All Features Complete

THE EDITOR'S NOTEBOOK
By The Editor 3
THE CORNEAL LENS
By June Lurie 69
OMNIRANGER
By Leslie Phelps 78
THE METAL ARM
By H. R. Stanton 79
ANTIBIOTIC ACCELERATOR
By Carter T. Wainwright 79
MECHANICAL COW
By Milton Matthew 88
LADY LUCK IS A TRAMP!
By William Karney 88
FINDERS, KEEPERS...
By L. A. Burt 89
SUPPLY AND DEMAND
By Jon Barry 89
ATOMIC SUBMARINE
By A. T. Kedzie 94
FACTORY ON WHEELS
By Charles Recour 94
HOBBY OF THE FUTURE
By Sandy Miller 95
THE SCIENTIFIC FAN
By Lynn Standish 102
HOT-SPOT MACHINING
By Ramsey Sinclair 103
IDIOT STICK
By J. R. Marks 103
CYBERNETIC QUIBBLE
By A. Morris 116
ENOUGH TO EAT?
By Cal Webb 117
READER'S PAGE
By The Readers 118
FABLES FROM THE FUTURE
By Lee Owens 125

Trade Mark Registered U. S. Patent Office Nos. 373844 and 511027

WILLIAM B. ZIFF
Chairman of the Board and Publisher

B. G. DAVIS
President

Vice-Presidents:
MICHAEL H. FROELICH
Dir. Eastern Division

H. J. MORGANROTH
Production Director

LYNN PHILLIPS, JR.
Advertising Director

H. G. STRONG
Circulation Director

Secretary-Treasurer
A. T. PULLEN

Art Director
HERMAN R. BOLLIN

Editor
HOWARD BROWNE

Managing Editor
WILLIAM L. HAMLING

Associate Editor
L. E. SHAFFER

Art Editor
BRAD PENDLETON

Published monthly by ZIFF-DAVIS PUBLISHING COMPANY at 185 North Wabash Ave., Chicago 1, Ill. New York Office, 366 Madison Ave., New York 17, N. Y. Entered as second class matter June 3, 1947 at the Post Office Chicago, Illinois under the Act of March 3, 1879. Additional second class entry, Holyoke, Massachusetts. Subscription: in U. S. Possessions $2.50 for 12 issues, all other foreign countries, $3.50 for 12 issues. Subscribers should allow at least two weeks for change of address. All communications about subscriptions should be addressed to the Director of Circulation, Ziff-Davis Publishing Company, 185 North Wabash Ave., Chicago 1, Ill.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

VOLUME 12 NUMBER 12

All Stories Complete

WHEN THE WORLD TOTTERED (Novel—35,000) ..... by Lester del Rey 6
Illustrated by Robert Gibson Jones
Father Odin knew that only a miracle could save the Gods — or perhaps a brave mortal . . .

TO THE VICTORS (Short—4,200) ..... by H. B. Hickey 70
Illustrated by Edmund B. Swiatek
Earthmen thought they had conquered Mars, and yet, the victors were the vanquished . . .

CHRYSALIS (Short—3,900) ..... by L. Major Reynolds 80
Illustrated by J. Allen St. John
Consider the Earth as an egg in space and the sun as an incubator. And the spawn, then? . . .

THE DEVIL FINDS WORK (Short—1,500) ..... by Mack Reynolds 90
Illustrated by Robert Gibson Jones
The poet needed help so the devil offered his services without charge — or so it seemed . . .

EARTHBOUND . . . (Short—3,500) ..... by Alfred Coppel 96
Illustrated by Robert Gibson Jones
They knew a saboteur was at work on the rocket project, in disguise — as an Earthman . . .

THE WIZARD OF BLUE GAP (Short—6,000) ..... by Frances M. Deegan 104
Illustrated by J. Allen St. John
He was just another eccentric with a machine — but this one could change the world! . . .

Front cover painting by Robert Gibson Jones, illustrating a scene from "When the World Tottered".

Copyright, 1950, ZIFF-DAVIS PUBLISHING COMPANY
Member of the Audit Bureau of Circulations

We do not accept responsibility for the return of unsolicited manuscripts or artwork. To facilitate handling, the author should enclose a self addressed envelope with the requisite postage attached and artists should enclose or forward return postage. Accepted material is subject to whatever revision is necessary to meet requirements. Payment covers all authors' contributors' and contestants' magazine rights in the U.S.A. and all other countries in the article and/or illustrations and for publicity and promotion in connection therewith and will be made at our current rates upon acceptance. All photos and drawings will be considered as part of material purchased. The names, of all characters that are used in short stories, serials and semi-fiction articles that deal with types are fictitious. Use of a name that is the same as that of any living person is coincidental.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

WHEN THE

The whirling blades of the chariot cut a swath through the giants' ranks . . .

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

WORLD TOTTERED

By Lester del Rey

If the fates were correct, disaster would visit Odin and his sons. Then could a mortal change the destiny of the Gods?

"An axe-age, a sword-age, shields shall be shattered;
A wind-age, a wolf-age, ere the world totters."

Voluspa

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CHAPTER I

LEIF SVENSEN threw the last split log against the saw, feeding it automatically by the whine of the blade. Then he straightened his lean body, knocked the blond hair back from his eyes, and kicked off the motor. The mechanical growl faded down to nothing, letting the drone of the wind and the pinging of icy crystals on the metal roof come through. He scowled at it and began beating his hands together to warm them.

"Fine way to end September," he said, but there was no surprise in his voice. It was a purely routine remark, and his visitor took it as such, though his own scowl deepened.

"Yeah. Radio says there's a blizzard running from Dakota clear down to Kentucky. Guess we're just getting the edge. Helluva year—no summer, killing frost early August, now this. I hear some people claim it's the end of the world."

He lifted inquiring eyes that mirrored doubt and reluctance to express his own ideas without encouragement, waiting for Leif's response. Then he shrugged. "Made up your mind about your dog?"

"It's still made up, if that's what you mean," Leif answered flatly. "He's been chained the last two weeks. And I'm not going to kill him because of a bunch of lies. Is that what you came about, Summers?"

Summers hesitated, trying to play safe and straddle the fence, as usual. "Just figured I'd better warn you they're holding a meeting on it. Al Storm had two pigs killed last night, big tracks around like a wolf—or your dog. Storm's mighty put out—figures the dog's gotta go, and seems to want to take you with him. With food getting scarce, and all....Well, I just thought I'd tell you. Maybe you better attend the meeting."

Leif nodded. Summers was right, at that. With the loss of crops and the crisis in food over the whole world, there had already been lynchings in some places for less than the loss of a pig. He scratched his nose thoughtfully, and Summers relaxed, biting off a fresh chew of tobacco.

"Seen an angel last night," he announced importantly, to change the subject. "Big blonde woman on a white horse, singing loud enough to raise the dead, about a hundred feet up in the air, going hell-bent east. Four of us out hunting all seen her—just like the ones all the soldiers been reporting over there. Long about sundown, if there'd been a sun....Of course, we heard about the one in Twin Forks, but...."

Leif let him ramble on, not surprised by it, but trying to pretend interest. Every war has its mass hallucinations, and the stalemate that had begun in Europe was loaded with the hysteria of the weather and the fear of famine to come, as well as tension over the atomic bombs that had somehow not yet been used. It was small wonder that reports kept trickling back of angels riding the sky on horseback. And, like the flying saucers of a few years before, it had spread until everyone was beginning to see them. It had probably been only a trick cloud, catching a stray ray of sunshine, but there was no use in robbing Summers of his importance by suggesting that.

HE WELCOMED the sound of the phone from the house when his ears caught it during a lull in the wind. He started out at a run, throwing words over his shoulder at Summers. No knowing how long it had been ringing.

It was still ringing as he grabbed it up, though, and the voice of his

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

twin brother came from the receiver. "About time, Leif. How soon can you pick me up?"

"What happened?"

"Skidded into a telephone pole. Not much left of the machine, but I jumped in time. Few scrapes and bruises. You should see the nurse I've got bandaging them. Mm-mm!" The phone carried only his chuckle as he said something away from it.

"I told you not to take that damned motorcycle out on these roads...." Leif began, but Lee cut him off, still chuckling.

"So you did, son, so you did. Look, I'm at the Faulkner place—Know where it is? Good. Then come and collect your erring brother."

The phone went dead, and Leif grinned wryly, with a mental picture of how the bandaging would be done. Lee was like that. The crazy fool had managed to get into the Second War at fifteen, and had followed that by a trick in China, down into some South American fracas, and over half the unknown world; his letters had come back now and then, filled with exploits, casual heroism, new citations, girls, and money that Leif had used to develop their farm.

Now he was back to recover from a chest wound he'd picked up as a mercenary in the new French Interior Legion, and already bored with the farm and quiet. It was like him to go careening off on his motorcycle before his chest was half healed, and to consider the almost certain accident only a joke and a chance for another conquest.

Summers was gone when Leif came out. He glanced at the shed, saw that Lobo was still chained securely, and headed for the garage. It took time to put on skid-chains and check the car against any trouble from the roads. Lee wouldn't have bothered, Leif realized as he started the motor. But the habits of caution were ingrained. He'd stayed on to run the farm and build up the orchard, to plan and go slowly. Maybe the full cellars and the bank account justified it. But there were times when the letters from Lee came, or on the rare visits, when he wondered. The most excitement he'd known was from vicarious adventure on the television or in books. And as for romance....

Then his thoughts veered back to normal. Now he wouldn't be able to attend the meeting and beat sense into the heads of the would-be-vigilantes who were set to kill Lobo. Lee *would* pick a time like this!

The wind was increasing in strength, and the dull grey sky was hidden by heavier snow. It was still crystalline and sharp, though, bouncing on the frozen mud of the road and whipping against the windshield. Leif hunched over the wheel, staring ahead. He cut the heater up to maximum, but the wind whipped out the warmth before he could feel it. Driving back would be rugged.

To make it worse, there were still quite a few cars on the road—probably city people out trying to buy food in the country, and now scared back by the storm. He came to a rough stretch of road, barely wide enough for one-lane traffic, and pulled off at the side, skidding as he slowed to a stop. He waited impatiently as the Cadillac crept by.

THEN HIS foot reached for the gas, just as a rap sounded from the right front window. Leif swung about sharply. There had been no one near, he was sure. But now he stared into a red-bearded face and a pair of dark eyes, set too narrow and too deep. It was a handsome face, from what the heavy beard revealed, but something in it jerked Leif back, before he caught himself and opened the door.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"They call me Laufeyson," the stranger announced coolly, but there was a hint of a chuckle in his voice, and his lips parted in a fleeting smile that held a queerly sardonic twist. "I'll ride with you, Leif Svensen, since you're going my way. I'm happier not to walk, with the Fimbulwinter already upon us."

The word struck a familiar chord, and Leif groped for it, forgetting to puzzle over Laufeyson's knowing his name, or his sudden appearance. Then the word came back from stories he'd heard as a child. "Fimbulwinter—the dreadful winter. Wasn't that supposed to precede the Twilight of the Gods, or some such? The big war between gods and giants?"

"The Ragnarok. And the old blood runs strong in you, Leif, if you know that." The shadowed eyes were still studying Leif, with the wrinkles around them deepening in some sly amusement. "But I knew that. Eh, it darkens early. You're lucky for the lights on this—car."

Leif nodded. The name fitted the weather; it *was* winter, September or not. He cut on the radio to the local FM station, out of habit, listening to the weather reports. Beside him, the other jumped at the sound of the voice from the speaker, his red beard seeming to bristle suddenly. Then he chuckled, and sat back to listen.

Leif went on with his worrying over the road, listening with only half his mind. Food riots in the east, crime everywhere, fanatic groups in California, another war beginning in South America, and utter chaos in China and India. In nearby Brookville, the Larson brothers had quarreled over carrying in the wood, and killed each other with kitchen knives. And there were three more accounts of the angel riders in the sky, with some inconsistency about their avoidance of holy places, such as the air over churches. Then the announcer let his voice take on forced, almost falsetto optimism as he began on the weather.

Laufeyson broke in on that. "Your Norns in the box makes no sense," he said. "Talk of wind direction, when every fool knows the winds blow from all quarters at Fimbuljahr. Unless I smell it wrong, there'll be three days of blizzard, or more."

Leif nodded and cut off the radio; the forecasts were usually wrong now. He slowed as he came to a side road.

"Far as I go in this direction."

"I'll go with you, Leif, until you find your brother. I'm seeking a wolf, though not as the One-Eyed thought, and Faulkner's land is as near as any for me."

Leif stole a glance at him, but something about the eyes of the hitch-hiker held back his curiosity. He shrugged off a shiver that ran up his spine, and concentrated on his driving over the pitted little road. Lee's motorcycle came into view, crumpled completely, and already being covered by snow. How the rider had escaped injury was a miracle.

He drove up the lane and parked on the shattered side of the house. "Coming in?"

"I'll wait here, now that the wind no longer blows through this. And when I'm warmer, I'll be on my way."

Leif let it go at that, and went up the crackling, snow-covered steps. He rang, waited, and rang again, not surprised at the delay, even though his own efforts to date Gail Faulkner two years ago had been futile. He was grinning as she opened the door, and she dropped her eyes, blushing slightly. Behind her, Lee seemed pleased about everything, though the knees were ripped from both legs of his pants, and one hand was bandaged.

"Come on in and shut the door, son," he advised. "Hot coffee coming

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

up. You run along and fix it, honey, Leif probably wants to bawl me out."

LEIF GRINNED in spite of his intentions. Nobody had ever succeeded in staying mad at Lee, and he was still a sucker for his twin. The expression on their faces was the only dissimilarity in their looks, but it was enough. He let the unconscious resentment of Lee's too-ready success with girls fade, and dropped into a chair before the radiator, soaking up the heat gratefully.

"Go out and tell Laufeyson—in the car—to come in for some of the coffee, Lee, and we'll forget it. Though you did raise hell with my plans."

But Lee had already gone out, not bothering to put on his jacket. Then he was back. "Nobody there. But why didn't you bring Lobo inside? With the scare on, he shouldn't be running loose."

Leif jerked up, suspecting a joke, but Lee's face was serious. He looked again, then went out after his brother. He didn't need Lee's words to spot the footprints. Laufeyson was gone, and there was no mark of his going in the snow. Instead, beginning at the car, the prints of a large dog or wolf cut off around the buildings; there were no marks to show how the animal had reached the car.

"Laufeyson must have had his tracks covered by a gust of snow," he decided aloud. "But those prints can't be Lobo's—he'd have come to the house after me, even if he could get loose and follow the car."

"This Laufeyson must have been a werewolf then. Come on, let's get that coffee."

Leif dismissed the uncomfortable puzzle, remembering the effect Laufeyson had worked on him. Hell, in another month, he'd be seeing angels riding in the sky. What he needed was coffee and some of the slaphappy conversation that was sure to surround Lee and a girl.

But he was still puzzling over it more than listening to them when a car drove up, an hour later. Gail made some remark about her father and went back to the kitchen, while Lee reached for his jacket. There was a mutter in the rear, and then Faulkner's voice reached them.

"....new guy, never seen him before. Got there just when the meeting was breaking up in a draw. Sure put some gumption into those weak-kneed guys, though. Dead right, too. If Svensen won't get rid of that killer, by God, we'll do it ourselves—going around...."

His words cut off as he reached the living room and spotted Leif and Lee, and sullen embarrassment covered his grizzled face. Gail went scarlet and miserable behind him. Then his stooped shoulders squared belligerently.

"Get out! Get out of my house, both of you, before I throw you out. Sneaking around...."

Lee finished buttoning his jacket leisurely, still grinning, but there was a coldness to the grin that cut off the whipped-up rage of Faulkner and sent the man stumbling backward. "We're going, Faulkner. But if you really feel like losing that temper of yours, drop over any time. Haven't had a workout for weeks. Come on, Leif. Gail honey, I'll be seeing you later. And thanks for the coffee."

The girl stared at her father for a moment, then came forward to open the door for them, disregarding Faulkner's bellow. She came out on the porch, starting to apologize. Lee cut her words off, pulling her face up to his. She tiptoed to meet him quickly—and jerked back with a sudden scream.

They turned to follow her pointing finger.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The sky was black already, the thickening snow visible only where the lights of the house hit it. But something white was coming through it, squarely in the path of the light. A lusty female voice hit their ears, and a big blonde woman with the build of an Amazon appeared, mounted on the biggest white horse Leif had ever seen. She seemed to be riding down the light, staring straight ahead at the Svensens, with the hooves of the horse some four feet off the ground. Then her voice lifted in pitch, and the horse reared, leaping upward over the porch, while the song drifted out into silence. When they reached the rear of the house, she was gone.

CHAPTER II

LEIF CLIMBED into his car, waiting while Lee calmed the girl and made his good-byes. He didn't know what was in his mind. The hair on the back of his neck had risen in ancestral instinct, but there had been nothing terrifying about the rider, and he felt no fear. Even the horse had been normal, with no outgrowth of wings. He didn't question the sight. It had been too plain for hallucination. Somehow there were horses that could fly without wings—or there were scientific developments that permitted the projection of such a vision. Einstein's work with gravity was either paying off, or someone had found the secret of television in three dimensions—and color—without a receiver.

But the purpose of either eluded him.

"Valkyries," Lee said, sliding into the car. "Or that's what our ancestors would have called them."

Leif glanced at him sharply. "You don't seem surprised."

"Why should I be? I've seen them before." He grinned, too easily, but his fingers trembled a bit as he reached for the cigarette lighter. "I knew better than to tell you, before. But when I got this stuff in my chest, two of them came swooping down, yelling out that song of theirs. If that bomb hadn't carried me about six feet into the ruined church.... well, they'd have got me. Had a former priest tell me the decay of religion was loosing the old demons. He figured they were genuine valkyries."

"What do you think?"

"I think it's a good idea not to think of them. Either they're what they seem—or they're a good trick by someone or other. But I've seen enough not to make up my mind. I ....just don't like having them follow me here and stare that way."

Leif nodded, and reached for the starter. Before he touched it, the back door opened, and Laufeyson's voice reached him.

"It's still easier not to walk in the Fimbulwinter, Leif. With your leave, I'll return with you. Greetings, Lee Svensen."

Lee had swung around at the voice, and now his words were surprised. "De Nal! I thought they'd got you. Leif, de Nal was one of my company in the Legion, the last week I was up. How'd you get here?"

Laufeyson—or de Nal—chuckled. "I was sick of their type of war, Lee. When the bombs dropped and covered me in the mud, I played dead. Now I'm a deserter."

"What about your friend—the big, black-bearded guy? He must have been right where the big one landed."

"Jordsson escaped with me—the same manner."

Leif let them talk of the Legion, forcing his mind off this further puzzle. Their talk soon petered out to nothing, since it was obvious that they had little in common beyond the same service, and the car was silent,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

except for the beating of the snow and the howling of the wind.

The blizzard was close at hand, obviously, and the snow was already inches deep and beginning to pile up. Driving was something that required Leif's full attention, and he was grateful for it. Even with the headlights, visibility was bad, and he was forced to a crawl. Lee motioned questioningly, but Leif never felt happy when his brother was driving, even under ideal conditions. He went on, judging as much by the feel of the ruts under the wheels as by what he could see.

At that, he almost overshot his own entrance, until he heard the deep barking of Lobo. Then he swung in, hunting for the road, and started up it, just as the dog leaped toward them in the glare of the lights.

"Damn! I thought you said Lobo was chained."

Leif nodded, scowling again. "He was. Here, boy!"

HE REACHED over to open the back door, but the dog growled uncertainly, the hair rising on his back, and sidled away. Laufeyson grunted, and the dog lifted his muzzle and gave vent to a long, uncanny bay.

"Your Lobo doesn't appreciate me," Laufeyson said. "There are times when the dogs don't, and the smell is still fresh on me. Let me forward, and you come back, Lee, before we all freeze."

With the switch made, the dog crawled reluctantly in with Lee, and Leif drove up the long driveway. "You might look at his collar," he told Lee.

"That's what I'm looking at. The chain has been smashed, as if someone took a sledgehammer to it. No, darn it. . . . the links are half mashed, half fused. You'd think a bolt of lightning hit it. Here."

Laufeyson took it from Lee and held it where Leif could just make it out. The description was proper. It did look odd. With the neighborhood worried silly about Lobo already, it would mean trouble if someone had seen him, and there was no way of knowing how long the dog had been free. He wondered who had done it, but there was no way of telling.

The automatic door on the garage had frozen shut, and Lee had to work it by hand. Then they were out, and into the warmth and brightness of the house, Leif leading Lobo in, and Laufeyson following behind them. The man glanced about curiously, and the wrinkles around his eyes deepened.

"Better than being tied over three rocks," he commented, dropping into a comfortable chair. For a moment, he reminded Leif of a great cat resting in self-satisfied comfort.

Lee had brought down the whiskey and was pouring a shot apiece. Laufeyson seemed to brace himself, but he downed it and his grimace was contented. When Leif came back with coffee, he gave it a disgusted look and refilled his glass with the whiskey.

Unconsciously, Leif pulled the nervous dog closer to him, rubbing the great, wolf-like head. "At least, if the storm keeps up, the fools will have time to cool down. Wish I'd been at that meeting."

"It will let up for an hour or so, shortly," Laufeyson stated.

Five minutes later, the wind died down, and the outer air turned crisper and colder, but the snow stopped falling. Leif cast another doubting glance at the red-bearded man, but he was holding his thoughts in careful abeyance. Too much in one day needed time for digestion.

It was half an hour when the phone rang, startling Laufeyson out of his relaxation. The man caught himself and settled back, even as Leif answered it.

There was an attempt at disguising the voice at the other end, but it ob-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

viously belonged to Summers. "Svensen? Just a friendly warning. The men are getting together...."

"You mean they're out to get Lobo, Summers?"

The disguise dropped. "Yeah, that's right, Leif. Now I didn't want anything to happen to you. There's been another killing, over at Engels. And I figure maybe if you take care of things first...."

Leif hung up, swearing. But before he could get back to his seat, the phone rang again. He growled into it, then turned to Lee. "It's Gail—she wants you."

"Yeah, honey," Lee answered, holding the receiver away from his ear, calming her down. "Yeah....Ummhmm....Okay, we'll take care of it. Don't you worry. Nah, nothing to it....Sweet kid. Thanks. See you."

But he was frowning as he faced Leif. "Any weapons, Leif? Gail says the vigilantes are out for blood—Lobo's or ours, and they seem to want both. Drat it, Lobo couldn't have gotten to Engel's place and back, but we can't prove it. Damn these crazy fools—a little fear of hunger, and they go nuts."

LEIF HAD a rifle, but the last shell had been used on a hunting trip a month before, and he'd gotten no replacements. Lee grinned wryly, and was gone, to come back with an automatic and several clips. He threw them at Leif.

"You take this. I'll get an axe. How about you, de Nal? You with us?" There was no question between Lee and Leif as to what must be done. Lobo had been in the family since Lee had brought him back from Alaska as a pup; he belonged.

Laufeyson came to his feet gracefully, suddenly looking larger than he had before. "I'm not unfamiliar with an axe, if you have the double-bitted ones. Do you have one?

A minute later, he was swinging it about, testing the balance in the shed. Overhead, there was a dull thunder of hooves, and a sound of singing. The red-beard looked up, grinned at Lee, and made another practice swing. "They gather for the feasting. And one is yet to come."

One did come, almost on his words. The door flew open suddenly, bouncing on its hinges, and a huge bear of a man was through it before the rebound had closed it. His face was humorless, broad, and stronger than any face Leif had seen. The eyes were dark, and seemed to flash in the light of the overhead bulb, while his black beard jutted from his chin like a flag. There was a feeling of sheer power about him that seemed almost a solid aura.

"Jordsson," Laufeyson told Leif. "And a handy man in a fight, though he may bore you betimes with the telling of his deeds."

A huge, short-handled maul in the newcomer's hand flashed up, but the man apparently was used to Laufeyson's humor, even though he obviously could not share it. "The nidderlings come, and Nikarr has the shield maids out. He grows impatient."

"And you grow wordy, as I feared. More, and all will be shown."

Leif stared at Lee, and saw the same doubt in his brother's look. Something stirred in the back of his mind, trying to make sense out of the words. But it was interrupted as the sound of cars coming up the driveway struck their ears. Without a word, Jordsson, Laufeyson and Lee all moved out toward the lane. Lee turned back to cut on the bright porch lights.

"Shows them up, and helps blind them when they try to see us," he told Leif. "How do you feel, son?"

Leif managed to grin, but his heart

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

wasn't in it. These three professional heroes might think this a small business, but he didn't like the idea of an attempted lynching by his neighbors. A week ago, he'd have laughed at the idea, but now he was almost sure it amounted to that. He could feel the sweat gathering under his armpits, and his legs seemed to melt under him. He glanced at his hands, and noticed that they were trembling.

Lee tapped him on the shoulder. "Forget it. You're not going through anything I didn't feel. These things take experience, son. You hang back until you get the drift. Hell, a mad crowd can't shoot, anyhow."

"Sure, I should hang back when you belong inside, getting over your wounds, and when two strangers are fighting for me. I'm the man the crowd wants to get."

It sounded good, but he couldn't feel the words. It was all incomprehensible, so muddled that he wasn't sure whether he was a coward or not. Well, he'd envied Lee his casual adventuresomeness. Now he'd find whether he liked it. But already, he knew he didn't.

THE FRONT car stopped just half-way up the driveway, and men began piling out, moving purposefully up the road toward them. Someone yelled, in a voice that sounded like Faulkner. But all wore kerchiefs over their faces, or pillow-slips with holes chopped out. Inside the house, Lobo started barking hoarsely, and the sound touched off the men, who came boiling forward.

As the only man with a gun, Lee jumped ahead. He started to yell, caught his voice, and finally got it out. "All right, stop where you are!"

"You gonna give us the dog."

"Come and take him!" It was Lee's voice then. "There are thirty of you. We'll save ten for your wives."

"Ho!" The roar from Jordsson was an approving one, and he and Laufeyson moved up to flank Lee, putting Leif behind them again.

A sudden shout greeted the appearance of the red-bearded man. "Hey! It's him—the dirty traitor! Telling us we should take action and then ratting on us. Get him!"

Leif tossed a glance at Laufeyson, but the amused smile was still on the man's face. He stepped forward and began calling out names—including that of Summers—apparently without error. Even as Leif realized nothing could infuriate them more than piercing their disguise, they began pressing forward.

"Ho!" Jordsson's voice rang out again, like a clap of thunder, and the maul left his hand in a savage sweep. Something splattered out on the snow, and the maul seemed to be grabbed by someone and tossed back; it landed squarely in Jordsson's hand. Leif noticed it abstractly, even while his eyes stayed rivetted on the headless thing on the ground. The automatic fell from his hands. His stomach heaved, but his throat was too constricted to cooperate.

The crowd flinched, and a few in the front leaped back, but the pressure of those behind was too great. With a strange, animal sound of sheer fury, they charged forward. The three beside Leif were moving to meet them, in spite of the guns that were appearing in all hands.

Leif bent to recover the automatic, and something whistled by his ear. Realization finally penetrated that it was a bullet. He stood there, stupidly drying the automatic and shoving it into his pocket aimlessly, for another second. Then instinct seemed to take over, and he leaped frantically after the other three, who were already up to the crowd, too close for the use of guns. In front of Leif, a man was

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

clubbing at Laufeyson's head with a rifle. Lee's axe swept around, leaving a gory trail, and Leif grabbed the rifle before it could drop from the falling man's hand.

There were axes and knives in the crowd, too. Even as the barrel of the gun fitted into Leif's hand, he dropped it, to grab desperately at the handle of an axe swinging down toward him. It grazed his arm, shredding off leather from his coat, and he was down with the swinger, being trampled.

Two legs reared over him, and an axe chopped expertly down. The hand at Leif's throat went limp, and the axe came free in his grip, just as Laufeyson stooped and yanked him upright.

A PART of his mind was still wondering about his cowardice or lack of it, and another detached fragment was fighting at the sickness he could feel all through him. But the hysteria of the crowd and the ferocity of these former neighbors had entered into him. He swung out underhand, feeling the axe cut through the leg of someone before him, and moved up beside Laufeyson, who was now separated from the other two.

He still couldn't kill deliberately, but maiming and crippling seemed almost as effective. Things became a red haze in front of him for a few moments. When it cleared, he could see most of the attackers retreating wildly. They had bargained on a lynching with a little danger, been swept into something more vicious, and were now losing the frenzy in the face of real menace to their lives. He glanced about quickly, spotting Laufeyson and Jordsson.

Then he saw his brother on the ground, with his blood running out over the snow from a great gash through his abdomen.

Leif jerked forward, just as Lee lifted himself to an elbow and let out a sudden warning yell. But it was too late.

From behind him, something struck sharply against Leif's back, sending him twisting and reeling. He tried to come around and bring up his axe, but the man now facing him had already raised the big corn knife for another stroke. It glistened in the light like a dripping sword, and began chopping down.

Leif jerked sidewise, trying to throw himself back and away. But there was no time. The blade came down, inexorably. It whistled by his ear, bit into his jacket, and went on through. Pain hit him as the muscles parted and the collar-bone splintered. He was falling now, the knife dragging out of him. He started to shout, but his voice was a burble, and there was the salt of blood in his mouth.

Laufeyson's arm was suddenly under him, just as a shout went up from somewhere near.

Wild singing was coming from the air above, and with it sounded the thunder of hooves. An object flashed down as the pain in Leif began to sharpen and become unbearable. It separated into a big woman on an immense horse, dropping out of nowhere. Everything was turning into a grey mist, but consciousness had not left entirely. He felt her hand clutch his hair, felt himself lifted with a single heave of her arm, and dropped across the shoulders of the horse.

Then the wind was whistling past him, and he could sense the earth falling away. Behind him, the song suddenly rose to a strange shrieking set of tones, and they seemed to twist crazily. Rainbow spots merged into great bands and seemed to quiver through Leif's whole body, blotting out the pain.

The horse was laboring now. Its

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

breath came in short, hard gulps, and the huge hooves seemed to slip and slide. Again, the rider urged her mount onward, while the rainbow bands quivered, tightened, and relaxed. Leif felt the sweat from the horse begin to soak into him, stinging sharply as it worked into his wound, lifting the pain to new heights.

Again the horse strained, and something seemed to give with sticky reluctance. The pattern of the rainbow ran together, beating almost audibly. The horse seemed to breast some sort of a rise, and his hooves settled again into the steady pounding, while the woman's shout turned back to the song he had first heard.

There was a violent wrenching that threatened to tear Leif apart, atom by atom, and the rainbow colors poured out in a wild final burst.

Then all grew quiet. Blackness closed over Leif mercifully.

CHAPTER III

THE SOUND of distant metallic clashing and the shouts of men reached his ears next, with no apparent passage of time. Leif stirred, before remembering his wounds. But the pain was gone, and time must have passed. He was obviously on some sort of bed, though the usual hospital smell was lacking. He opened his eyes and blinked them. The darkness remained complete and total.

There was a sudden stirring beside him, and footsteps. He lay quietly, afraid to move and find how serious his wounds were, wondering why the lights were out.

"The trance still lasts," a woman's soft voice said. A hand ran over his forehead caressingly, and Leif could feel the hair being brushed from his face. The fingers remained another moment, cool and with an odd tingle to their touch. "He's slim for a hero, as Baldar was—and comely, too. He looks—gentle, perhaps, kind . . . ."

The lusty answering laugh was amused. "Careful, Fulla. Such words are odd in a virgin of the Asynjur. Remember Freyja's mortal husband."

"Nonsense, Reginleif." But there was confusion in Fulla's tone. "Though it has been a long time since a mortal joined us. And the Aesir. . . . Nonsense!"

The other laughed again, but dropped it. "He was trouble enough. Carrying him through Bifrost was almost too much for even the loan of Gna's Hoof-Tosser. The horse will be useless for a week. Let's hope he's a real berserker with the knowledge Asa-Odin wants. Surtr's hot breath is almost on us."

There was the sound of footsteps leaving, and her voice died with distance. Leif made little of it, and wanted to make less. Baldar, Aesir, Odin—they were dead myths and nonsense. He must still be delirious—but there *had* been the valkyr!

"Bifrost has burned your sight, Leif Svensen." He hadn't heard the man approach, but the sudden voice was that of Laufeyson, and without his usual sardonic humor. "Here, take my hand and make your eyes follow the feel of its motions. You'll need all your senses at the Thing. I've some small skill at sleight, as has been told. Now—by Ironwood's mother, this matter make right; speed minutes, and man, still mortal, gain sight!"

The words were a chant, and the motions a curious hocus-pocus, but it worked. The room sprang into sudden light. Leif blinked, looking at the aged beams of the ceiling. The room was huge, with hard wooden bunks around it, covered with bear-skins; weapons of primitive design decorated the walls, and the light streamed in from windows of oiled vellum. Laufey-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

son stood over him, wearing a helmet with spike and wings and clad in heavy mail, like a scene from a messy production of a Wagnerian opera.

It was no hospital! Leif's eyes jerked to his shoulder. There were no bandages or open wounds. Only a slight red scar showed.

Laufeyson nodded. "Asgard—the home of your ancestor's gods. And you're whole; going through the dimensional bridge of Bifrost revitalizes the body until it can repair any damage. We're myths, Leif—but myths with sharp teeth. To convince you—what language am I speaking?"

LEIF COULD remember the English words for "myth" and "dimensional" in the speech, but the rest—he couldn't place the sounds, though they might have been Teutonic in origin.

"We can't read minds here, but any vocalized words carry their meanings to all—such is the nature of Asgard. Will you believe?"

Leif shook his head, still uncertain. Something was wrong, but he couldn't accept the other's explanation so quickly. Laufeyson frowned.

"No matter—you'll have to believe. Already Fulla returns. Listen! Play dead, but remember Odin is stubborn and sometimes a fool. We were sent for Lee, and only I chose you, instead. To them, you must be the berserker, the hero who could hold back a score in blood-rage to save a friend, as was seen from Odin's throne. Play the part and be surprised at nothing. Odin's rage is not pleasant!"

Steps sounded from outside then, and Laufeyson was suddenly gone. In his place, a leaf drifted on a sudden wind, to blow through the doorway. Leif stared at it. Delirium or not, he was suddenly sure that this was the time to follow orders. He dropped back quickly, closing his eyes and blanking out all expression.

"Still in a trance," Reginleif's rough voice said.

"It should have been gone by now." Fulla's hand again rested softly on his forehead. "But nothing goes right since the awakening. Even the apples . . . . Perhaps appointing me in Idunn's place was a mistake; the tree responds to nothing I do. Well, he must be revived, Reginleif."

Reginleif tittered hoarsely. "I've revived enough heroes, Fulla; and Hoof-Tosser needs a rub-down. You do it—since you want to, anyhow."

Leif opened his eyes a crack, just enough to see the buxom woman leaving. Fulla was moving across the room toward him hesitantly, slim and supple, her hair long and golden, bound in the back by a curious metal crown of the same color. Her face had the beauty of a type sometimes called sweet, or wholesome, but with none of that lack of vividness; and the blush that was covering it now added to the effect. Then she was too close, and Leif closed his eyes quickly.

There was hesitation in her movements as she touched him this time. Her arm moved under his head, while her other hand rested on his chest. And suddenly her lips were on his, full and warm.

Leif might have had too little experience, but he hadn't been a total loss as a man. His arm moved automatically around her, pulling her down. For a moment, she permitted it, her hand moving to his shoulder and her lips responding. Then her breath caught, and she sprang back, blushing furiously.

She looked better to him with his eyes fully open.

"It was only customary—to awaken a hero entranced . . . ." She stammered slightly over the words. Then her lips

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

became determined. "But you were revived before. You tricked me!"

The delirium was definitely taking a turn for the better, Leif decided, and the unreality of the situation cut off the last of his inhibitions. "The neatest trick of the week," he admitted cheerfully, and caught her hand.

She struggled, half-heartedly. Halfway to him, she gave up and came to meet him eagerly. His grin vanished, and he was briefly shocked at his own response. Something in him gathered itself into a ball and burst. He was only conscious of Fulla and the need to be near her, to gather her more tightly to him—

"Odin summons!" A hoarse croak announced it, followed by the caw of a crow. Fulla sprang back from Leif, the red of her face rushing up and disappearing into whiteness. Leif followed her eyes, to see a black bird sitting on the shoulder of a shaggy grey wolf.

The bird regarded him steadily. "Odin summons the Son of Sven to the Thing. Let Fulla bring him."

It cawed again, beat its wings, and was off, with the wolf loping after it.

Fulla avoided Leif's eyes and began pulling a helmet and corselet of mail from the wall. "Put them on quickly. The Alfadur is impatient these days. And....we'll forget this folly."

HE WAS scrambling into the odd get-up, finding no time to answer. He had no intention of forgetting, nor, he thought, did she. But he followed her out quietly. The building sprawled over acres of ground, low and massive, with door after door in the front. Other buildings lay around it, some higher, but none over four stories. Most had been gilded once, but now only faint flecks caught the sunlight. Asgard needed repairs badly.

The land itself was more impressive. Deep blue skies went on with no clear horizon. A high wall cut off one side and a forest lay in front. In all other directions, the greensward of rolling plains continued on and on, soft and springy underfoot. It might have been a well-kept lawn.

They headed for the forest. Then, as they moved away from the buildings, he saw the source of the clashing sounds. The field had been worn down to bare dirt for square miles, and it was covered thickly with men in mail. Some held double-bitted axes, others spears, and most were equipped with broadswords and shields.

As he watched, a warrior not fifty feet away swung at two others, lopping off their heads with a single stroke. He wiped his forehead complacently and went looking for more trouble.

But Leif was beginning to remember his myths. These would be the einherjar, the heroes the valkyries brought back to Valhalla to fight in practice until needed at the Ragnarok. Odin made them whole each evening, so a little head-cutting didn't really matter.

"They look dull and sluggish," he commented, following Fulla.

She nodded. "Most are. We caught the vital force at the moment of death, but the white elves' false flesh doesn't hold it well. And to bring back force and body together is....well, you should know how difficult."

Leif looked at his body. Apparently, it was his body, and not some ectoplasmic stuff. It didn't feel ethereal as he watched her moving ahead of him. They crossed a stream on rocks and entered the woods through a well-worn path. Then he caught her again, drawing her to him. She responded briefly, before drawing away. "We'll be late," she half-whispered. "The Aesir are assembled at Yggdra-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sil even as we talk now."

They were, as Leif saw a few minutes later. The tree was a huge ash, spreading out like a canopy over them, its top tangled with others around it. Odin sat in a hard chair, recognizable by the wolves at his side, the ravens at his shoulders, and the one eye that stared glumly out at the assembly. For a moment, Leif felt pity at the sight of the bowed shoulders and the doom and frustration on the god's countenance.

From somewhere, Laufeyson appeared: "I'm to sponsor you."

Fulla drew back hastily, making a sign with her fingers. "Then are the Aesir mad, Loki. Son of Sven, the air here seems no longer sweet, and I'm wanted. Guard yourself against the Evil Companion."

She was gone, but Loki was chuckling in amusement.

"Who else?" he asked. "Surely you're not surprised to find who I am. Umm, I see you recognize Odin. Vidarr and Vali, his sons, are beside him; they're to live after Ragnarok, and I suspect they welcome it. Then Heimdallr, who'll oppose anything I wish. . . ."

He went on, but Leif was paying only meager attention. He was remembering tales of Loki's treachery; Fulla's warning wasn't unfounded, they indicated. But he had no choice now. He followed Loki, the son of Laufey, or Nal.

Odin glanced down at him, while the cold face of Odin's wife, Frigg, refused to see him. Odin motioned, but it was for Fulla. She came up with a chest, and Odin pulled out a small, green apple. He nibbled at it, swallowed, and passed it on; the bitterness in his voice might have been from ulcers.

"Phaaa! Are we to gain our youth and strength on such as that?" He belched unhappily. "And not even enough of those. Loki, where is my son Thor?"

"Oku-Thor has not returned. Perhaps he seeks more heroes." Loki's voice was humble and apologetic, but changed to relief as he spoke sidewise to Leif: "We're in luck there. Thor would probably know you and have us both cast into Niflheim."

"And the hero?" Odin asked.

LEIF FOLLOWED him through the mob, noticing the stares directed at the trousers under his mail. Loki's voice suavely began the tale of how they'd tried to get their man in battle, to be defeated by the church. He told of following, of the tricks to arouse the neighbors, and of the battle there. Leif noticed a skillful blend of his own part with Lee's. He also put it down as a count against Loki that the wolf had been Loki's disguise. Apparently men could only be pulled over Bifrost when they were dead or dying—and by tradition, they were supposed to get their wounds in combat.

Odin listened impatiently until it was finished. "Little enough, but I suppose it must do. It's an ill age when men turn to women. Still, if he has the skills they've used to replace their waning courage, we can use him. Loki, you sponsor this Son of Sven against the Ragnarok?"

Loki lifted his hand. Beside Odin, the thin-faced Vali and the fat Vidarr turned quickly and began muttering. Odin cut them off, his shoulders sagging further.

"What more can we do?" he asked almost querulously. "The times are mad, and we grow mad with them. If this hero of Loki's fails us, we can be no worse off, and you may have the two of them for your sport. Son of Sven, step forward!"

"We're in luck," Loki began. But

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

a sudden roar stopped him.

"Hold!" The roaring bellow came from the rear, and Loki swore hotly. The huge figure of Jordsson—obviously Thor—came jostling among them. At his heels ran a tired, panting dog that Leif recognized as Lobo. In the god's arms, Thor was carrying the body of Lee!

"Hold!" Thor roared again. He dropped Lee with surprising gentleness onto the turf and swept his eyes back over the group, searching. Loki had pulled Leif back quickly, losing them in a thicker group. Thor scowled and faced Odin again.

"Father Odin," he announced, "this is the hero, the real Son of Sven. I denounce the other as an impostor, a coward and as great a knave as Loki. I demand justice!"

His eyes swung toward Heimdallr, who stopped polishing his fingernails against his thighs long enough to point to Loki and Leif. Then Thor turned toward them, reaching for the hammer at his side.

CHAPTER IV

ODIN'S VOICE took on a sudden note of command as he cut through the confusion. "Enough, Thor! This is a judging place, and these matters need thought. How comes this man without a valkyr to guide him?"

Thor's impatient hand dropped slowly, and Loki breathed a sigh of relief as he began dragging Leif cautiously forward. Thor's anger was obviously still hot, but he was trying to control it.

"There were no valkyries after Loki befuddled them into taking that one." He jerked his thumb contemptuously toward Leif. "Reginleif and the others went off, leaving me with the hero dying at my feet. I carried him through Bifrost on my back. How else would it have been possible?"

"And the dog? Since when is Asgard for beasts?"

"Two of the nidderlings were killing the animal when my hammer Mjollnir found them. But he's a stout-hearted beast—dying, he still crawled after us. Over half the way he came on his own. Should I have refused to help him when Loki's dupe rode here on Hoof-Tosser?"

There was a clamor at that, and even Loki's face showed admiration. "Impossible for even our best horse," he muttered to Leif. "But when Thor's angry, he'd carry twenty through Bifrost. It will sway the Aesir to his side, though."

Leif had almost stopped thinking in the chaos of events, but he caught at Loki's shoulder now. "I'm calling it off, Loki. I won't fight against my brother!"

Loki grinned. "Noble, eh? Don't worry. Thor wouldn't carry him here and then desert him. He may not be bright, but he's just, in his own way. Lee'll do well enough, whatever happens. But unless we win this, we won't. You *can* be killed, even here, since you're wearing your own flesh instead of elf-shapings. Or Odin can do worse."

Now they were near the front of the throng, and Loki raised his hands ceremoniously for attention. Thor scowled at him, but Odin nodded slowly.

"A mighty feat, Thor," Loki began, keeping his voice just low enough that the others had to strain to hear. The trick quieted them. "Bragi will make a new poem of it. But a pity, too—since I'd already sent the real hero on. Alfadur Odin, in the confusion of the fracas, it was easy to confuse two who seemed alike. Only by holding back and letting Thor do most of the infighting was I able to keep

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

them straight."

"What!" Thor's bellow was a fresh shock every time Leif heard it. "You claim I don't know a hero, Loki? Now, by Ymir...."

Loki shrugged. "Not an unconscious one, Oku-Thor. Dying, men are all alike. No, I claim only that you were too intent on the battle to see all, as I did in my humbler role. Fulla, you were present when he arrived. Say whether my candidate seemed a coward."

Leif looked at her quickly. But the warmth had gone from her face, and her voice was cold and impersonal. "How should I know, Father of Evil? He was grievously wounded, from the scars that had still not gone."

"And did he cower when he learned where he was, Fulla?" Loki asked, the grin back on his lips. "Or did he perhaps seem eager to join Asgard's company? Surely you would know of that."

She flushed under Loki's gaze, and her eyes swung to Leif. Then she turned away coldly, her chin raised a trifle too high. "He was bold enough to be *your* twin!"

She came by Leif then, not a foot away. He reached out, but she swiveled and passed without looking. "Oku-Thor, your hero needs reviving, and since no valkyr has volunteered, perhaps my help would be welcome."

SHE DROPPED to her knees on the turf, lifting Lee's head in her arms. Leif swore—she needn't have put that much enthusiasm into the kiss. Then he hated himself for thinking it while Lee was in need of help—and swore again as Lee opened his eyes and grabbed for her. Frigg's cold, disapproving cough finally broke it up, though, and Fulla stood erect, staring at Leif with a thin, chill smile on her lips.

Lee shook his head and came to his feet, looking at the group around him. He frowned, shook his head, and suddenly laughed.

"I'll be damned—Asgard! Thor, Odin—and Loki de Nal." He shook his head again, staring into the crowd. Then his face cleared. "And Leif! Damn it, son, I'm selfish enough to be glad they got you, too."

Lobo had spotted Leif at the same time and was leaping up and down, trying to lick his face. Fulla carefully moved to the other side of Lee as Leif came up. Thor muttered unhappily as the brothers came together, showing their complete similarity. His eyes were doubtful as Loki joined them with a grin on his lips.

The puzzled mutter of the group around reached Leif's ears dimly, but his thoughts were churning busily over the fact that Lee could take everything in at one quick glance and seemingly enjoy what he found. Apparently, he could also sweep Fulla to him in less time. But Leif's throat was oddly constricted as he grabbed Lee's hand briefly. "You look a lot better than the last view I had of you, Lee."

"Two heroes, both alike, both wounded," Loki commented loudly, while Thor regarded him with a mixture of distrust and a strange, begrudging respect. "Yet names have power, too. Should the old blood not be stronger in one named Leif?"

Thor's grunt told Leif that it was a telling stroke; the gods were apparently better at tradition than logic. He was trying to fill Lee in on the essential facts, but he stopped to stare at the crowd.

Heimdallr frowned and stopped polishing the metal on his corselet. The god's fatuously self-satisfied look sharpened as he stared at Leif. "Two heroes, Loki? But my eyes, which can

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

see the grass grow at a thousand miles, tell me your hero has one wound on his back. And I think it was the first wound."

Loki's grin slipped for a second, and Leif felt his palms begin to sweat. The seriousness of this was slowly dawning on him. He rubbed his hands against his trousers, bringing them up against something hard in his pocket. The automatic still rested there. He reached for it, even as Loki caught himself.

"Heimdallr's eyes see more than rumors this time, then. Of course it was first at his back that the nidderling thrust—because none dared to face him."

But the hesitation had been too long, and the face of Odin was sharpening into determination. Surprisingly, Thor looked uncertain now, still muttering. But the doubts in the others were going.

Leif caught himself. Then the automatic was out and pointing toward the smirking face of Heimdallr.

"If...." Leif swallowed, caught his voice, and somehow managed to stiffen himself against a picture of Lee in the same situation. "If you're to blow the horn that gives Asgard notice of Ragnarok, Heimdallr, you'll do it better without a hole in your head! Or haven't you seen what one of these can do?"

He pulled the trigger as he spoke, and the report jerked every god up, like puppets on strings. The bullet plowed into a knot in the tree, showering splinters and dust down at Heimdallr, and cutting the smugness off sharply. Leif was grateful for the target practice he'd had with Lee whenever his brother was home. "The next goes through you!"

"No!" Thor's hand leaped forward, closing around the gun and lifting it from Leif's hand. "A good play, Leif Svensen, but Heimdallr's Gjallar-Horn is needed."

LEIF TURNED, expecting the big hammer to come up at him, but the god stood calmly, regarding him. Heimdallr let out a sudden shout, but quieted at a word from Odin, and turned to confer quickly with Vali and Vidarr.

Then Loki was speaking again. "You wanted proof—and you have it. As was shown from Odin's throne, the heroes now have new weapons—which we need. Who but a hero would have such—or can Thor's hero produce such a weapon?"

"You know damned well I can't," Lee said quietly. "But...."

His arm chopped down abruptly on Thor's wrist, and his other hand came out to catch the automatic. Thor blinked, scowled, and gave a sudden booming chuckle of approval that snapped off as Lee tossed the gun to Leif. With another abrupt twist, Lee had a two-bitted axe from a bystander and was moving to cover Leif's back.

"A hero, as all can see," Thor shouted toward Odin.

Loki snorted. "A hero—when Thor drops the weapon into his hands! It proves nothing. Can your hero make weapons, Oku-Thor? We've heroes enough in Valhalla—we need skills."

"What're we supposed to do?" Lee asked in a whisper. "Make guns and ammo for them?"

Leif was careful to hide his lips from Heimdallr. The god might be a popinjay in some ways, but his eyesight was obviously a lot better than average. "Seems so. I suppose we could take some kind of a stab at it. I remember some of my college chemistry, and any farmer has to know how to handle tools. We might make flintlock carbines for ball shot."

Thor was standing uncertainly, while Odin looked at him expectantly.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

There was a roar and chunks of wood flew from the tree as the bullet struck it...

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Finally the black-bearded god turned to Lee. "Can you, Lee Svensen?"

"About as well as you can," Lee answered. "Using guns and making them are two different things where we come from. Besides, it takes material. You might ask my brother."

Odin turned questioningly to Leif, who shrugged. Maybe he could make weapons, but he had no idea of how long it would take here, nor whether he could even get the materials needed. Besides, he still couldn't trust Loki too far; maybe Thor would take care of Lee, and maybe not.

But Loki had moved in front of him, one hand casually behind his back. He moved it quickly, while addressing Odin. "A difficult task. As Lee says, it takes material. Fortunately, I brought such material for one gun only with me—and at great effort, too. Leif will now make such a gun for all to see."

The hand behind his back moved suggestively, and Leif glanced down to see an automatic lying in the god's palm. He seized it as Loki moved aside. "It might be best to conceal your motions," Loki observed softly. "At least, pretend you're having some difficulty."

Leif handed the original gun to his brother and bent down, hiding his hands under his helmet. He had no idea where Loki had picked up the gun, but it seemed that the sly god was prepared for most emergencies. Finally he straightened, the second automatic in his hand. Loki's lips were close to Lee's ear, but no sound reached Leif. Lee was grinning broadly, but his face sobered as Leif came to his feet.

Another clamor came from the crowd, and Odin sagged back into his seat, nodding, but still not sure. At the side, Heimdallr was whispering to Vali and Vidarr.

Then Vali's voice cut through the noise. "Father Odin, it would seem that Loki spoke truth for once, and that Leif shall be the man to win the Ragnarok."

Vidarr was nodding, speaking quickly to Odin, while the crowd set up a fresh shout. Heimdallr was on his feet, yelling at Vali, but the crowd noise covered his words. Finally, Vali caught him, making frantic motions until he sat back again, scowling. Then, as quiet slowly came, Odin turned to Leif.

"We have decided, then, Leif, Son of Sven. We distrust much, but we have no other choice. Prepare the weapons against Ragnarok and you shall have any one request within our not inconsiderable power to grant. Betray us or give us further cause to doubt, and Niflheim shall claim you. By Ymir, we swear it. As for the other—"

"As for the other," Thor's voice broke in heavily, "I have brought Lee Svensen to Asgard under my safe conduct. Does any question the honor of Thor?"

Obviously, nobody did. "Then Lee shall lead the einherjar with me," Thor finished. He started off, motioning for Lee to follow.

"Be seeing you, son," Lee told Leif. He went off after Thor, whistling snatches from the *Ride of the Valkyries,* winking at Fulla as he passed her. She turned to follow.

BUT LOKI'S voice reached out, all sweetness and honey now. "Good Fulla, as you can see, I may be busy in conference. Why don't you show our hero to the workshop of the dwarves, since it's there he'll work? And you might tell them they're to do whatever he says."

Fulla's protest was stopped by a nod from Odin. She came up to Leif then, jerking her head for him to follow. They went back over the same lane through the woods. She quick-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ened her steps, marching along, head high, not looking back to him.

Leif caught up with her, and spun her around. "What's going on? Just because Lee's around, you don't have to treat me like dirt!"

He tried to pull her to him, but her hand came out, smacking sharply against his face. Lee would have grinned and gone ahead, and for a second Leif considered it. But the look in her eyes was too much for him. He stepped back.

"Dirt I could endure," she told him coldly. "But a tool of the Evil Companion—a trickster, a false hero—even one who looks like Baldar and. . . ."

He grinned wryly. "Go on and say it. You haven't forgotten being kissed; any more than I have."

"No. I remember that—to hate you for it. But don't feel that you've won everything yet, Leif Svensen. Heimdallr saw through your trick."

She was pointing at his hand, and he looked down now, conscious that he was still carrying the automatic Loki had given him. Then he swore. There was no gun, but only a short stick of wood, shaped something like one. Loki had tricked them, and Heimdallr hadn't been fooled, but only silenced somehow by Vali. Something came to his mind—Loki's doubts of Vali and Vidarr, who would survive Ragnarok, and might like a false hero to speed it. He swore, and threw the stick aside.

Damn Loki! Leif scowled, wondering just what he'd gotten into. Loki was supposed to be on the side of the giants originally; maybe he was only pretending to go along with the gods. And if that were so, Leif was nicely stuck in the middle, while the millstones were grinding out trouble. To make things worse, he was sap enough to fall for the only girl who'd ever really appealed to him, and she had to be a goddess, as well as hating anything that Loki touched.

They came out of the forest by another trail, into rough ground near the great wall, almost at the entrance of a sooty, huge building that ran back into a hill and disappeared. Fulla pointed to it. "The dwarves are in there, where you'll find them. Modsognir!"

A short, ugly creature came out, his face covered with warts, and his whole body filthy—more dirty than the rags that covered him. He was perhaps four feet high, but most of that was torso and his chest expansion must have been better than sixty inches. He nodded ponderously.

"This," Fulla told him, "is your master. The Alfadur commands that you obey his orders."

She turned quickly to leave, jerking her head aside as she swept past Leif. The little grin on her face indicated that she knew she had him going, and enjoyed that part of it thoroughly.

It was too much. He caught her by the shoulders this time, and forced her around, pulling her to him before she could draw back her arms. She was kicking and scratching as she came, but he was pleasantly stronger than she was. She tried burying her face in her shoulder, but one of his hands in her hair forced her head around. Her lips were thin and hard. Then slowly they relaxed and parted. He pulled her closer still; letting his hand fall from her hair.

She bit him!

His hands dropped completely in surprise, and she was gone, almost stumbling in a mixture of fury and embarrassment. The snickering laughter of the dwarf behind her didn't seem to help. Leif wiped the blood off his lip, but he wasn't sorry. At least she'd remember him now!

"You're growing," Loki's voice said

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

behind him. He spun to see the god lounging beside the dwarf, grinning. "Fulla needs a bit of taming—as who wouldn't, after being a virgin for fifty thousand years or more?"

"I'm growing sick of it all," Leif answered. "Why should I try to do anything for this cockeyed heaven of yours? I don't even know what's true and what's fakery."

LOKI SMILED with his lips, but there was no amusement now on the rest of his face. "Maybe we have been a little hard on you. I had to be—I couldn't reason with the Aesir. But don't think you can walk out on us now. Niflheim isn't any fake."

"What is this Niflheim?" Leif wanted to know. He had a vague idea of a cold hell, and no more. Idly, he noticed that Loki's speech sounded less stodgy now, particularly since leaving the meeting. Or maybe his ears were just getting used to the language, and he was hearing it as he would English. Probably Odin didn't approve of the normal, casual speech.

Loki reached into a bag at his side and pulled out a small mirror set in a frame with a handle. "I borrowed this from Odin's possessions, you might say. It's a small version of the big one on his throne. A—umm, you'd call it a window through the dimensions, perhaps. Here's Niflheim."

Leif took the mirror, looking into it curiously. Then he tried to drop it, but his hands refused to move. Something strained at his eyes, and the sight began clearing—showing people—people with...with...

The next second, he was vomitting while Loki supported him. The god had pulled the mirror out of his hand, but nothing could ease the sickness that ran through Leif. Finally he quit gagging and sat down shakily.

"That's Niflheim," Loki said, and his own voice held a tinge of what Leif had felt. "It's a place where everything is wrong—and where men can't go crazy, even, since it has two times, and one is fixed, immovable. The longer you look, the more you see—and that's true even though you stay there a million years. Some of the ones.... But keep the mirror. You may need it to see the processes as they are done on your world, since you and I know you're no master of the skills we need. I wanted a few experts, but Odin would have heroes or nothing. So I did the best I could. And if I made a mess of your plans—"

"If!" Leif grunted weakly. "I couldn't go back there if you'd let me. They'll have me down for sixteen types of crimes, not to mention what will happen to the farm."

"Umm. Well, Thor protects Lee, and I'll try as much for you. When the time is right, perhaps I can visit earth and set matters in order for you. This is the workshop."

Leif looked from the crude forge to the way one of the dwarves held a piece of heated metal in his hands on a stone anvil, while anotner swung at it with a crude hammer. But most of the dwarves had only their bare hands and mouths as tools. Beside him, one held a crude spear and was biting off flakes of metal with his teeth to smooth it into shape.

Loki spread his hands. "They have talents—of a sort. But—"

Leif dropped onto a rock, holding his head. This made everything just lovely. And if he failed with such equipment—Niflheim!

"Suppose I win your war with the giants?" he asked.

Loki shrugged. "Godhead and the wench, maybe. And the Aesir will take over your world and run it their way again."

Leif had a vision of that. Lord knew, men had made enough of a mess of things, but with the Aesir ruling,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

hell would really pop. He came to his feet suddenly, but Loki had already stepped out of the doorway.

CHAPTER V

THE WORKSHOP had changed, later. The armorers had been moved out to a separate building, and the addition of a real forge, a flat anvil, some tools, and a crude grindstone had freed most of them for other work. The arms and armor were better for the new equipment.

Inside the caverns of the dwarves, the rear was filled with equipment of the same kind, but in the front sections there were simply big iron cauldrons and hoppers, joined by queerly twisting lead pipes. Leif stood beside Sudri, his foreman, watching two of the dwarves busily shovelling crude ore into a hopper. As far as he could tell, there were simply two pipes under it, with nothing further to do the work. Yet the iron sulfide ore went in, ran through the pipes, and came out as sulfur on one side and iron on the other.

Sudri clucked sharply and reached forward to taste the sulfur. He ground a lump between his teeth, swallowed, and scowled. He twisted a loop of the pipe half a degree, tasted again, and burped happily. "Pure now."

Sudri had been picked by Leif as the easiest to remember, since he was the ugliest one of them all. He looked like a maimed frog with severe glandular trouble. His nose was buried in the growths on his face, and the face was little more than a huge mouth, carried on a squat body that hopped about with grotesque joints stuck on haphazardly. The elevation above his fellows seemed to have done him good, though, and there was no question of his loyalty.

Well, they'd have gunpowder in plenty, at least. Leif had used the dimensional mirror to find and copy an up-to-date periodic table of the elements, after his first surprise at finding the dwarves had a very clear idea of atomic arrangements. They seemed to make their tests by tasting, but it worked. Now he could get any element or simple compound he wanted from them by telling Sudri what it was.

Leif grinned, remembering their slightly unorthodox method of producing nitric acid. Learning to control the kidneys really meant something here, it seemed.

Then he sobered, and turned back to his private room, lined with lead on the assumption that what would stop X-rays might stop Heimdallr's vision. He picked up the dimensional mirror glumly, and began staring through it. Using it was simple—think about some place on earth, and there it was. But it had its limits. He could locate a library, even scan the backs of the books; but until someone opened the book at the right place, he couldn't read it.

Sudri came in expectantly. "What next, boss Leif?"

"About half a ton of U-235," Leif told him sarcastically. "Either that or some detonators."

"What are detonators?"

Leif explained as best he could. They'd been mixing small batches of the gunpowder, and they had casings for grenades, since those were crude enough for the dwarves to produce. But getting some way of setting off the grenades that would be foolproof and simple enough for the dopey heroes was another matter. He'd figured out ways, but none that the dwarves could follow in production.

Sudri scowled thoughtfully, and Leif shrugged. "Okay, I didn't really expect you to get them. Suppose you send in my milk, instead. About time Reginleif brought chow over."

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Sudri's face cleared, and he was gone. Leif had found that the legendary Heidrun—the goat that gave mead—was just a plain herd of goats, giving honest milk before the gods let it ferment and mixed it with honey for the sickeningly cloying drink they used. And the boar that was supposed to be killed and eaten every night, to be restored by Odin's magic, had proved to be nothing but a horde of half-wild pigs running in the woods behind Yggdrasil.

Boiled pork and mead three times a day! No wonder Odin had ulcers. Leif hadn't found vegetables yet, but he had been able to milk the goats on the sly. The stream in back of the dwarf caves made a good place to cool it.

THERE WAS a halloo from outside, and Lee came clanking in. He put a platter and bucket on the bench and tossed the big shield on the floor. "Met Reginleif coming with the chow. Ooof, I'm tired. Son, if we're to win this war, it looks like it's up to you. Dumb einherjar couldn't lick sugar without someone melting it for them first. How's it going?"

Leif told him in detail. He had more respect for the Ragnarok now, having gotten a good look through the mirror at the giants—frost and fire gangs both—who were massing against them. They were beasts in everything bad about the word, but they were strong, and numerous enough. Odin had good reason to fear them—and if they won and got through to Earth...

He tossed something over to Lee that resembled a gun. "Barrel inside that looks as if a dyspeptic caterpillar had crawled through butter. Two weeks' work for a dozen dwarves. I'm still trying to build a lathe, but just try cutting threads on anything with no guide and no decent tools."

Lee threw the useless gun aside. "And even if we get the grenades, I'm not too sure how well they'll work against the giants, from what I hear. Thor's son Ullr—no, his stepson—anyhow, he's a nice enough guy, and quite a bowman—he wants to meet you, by the way...."

Leif grinned, in spite of himself. "Here, stop eyeing the milk and help yourself. Maybe you'll remember what you were saying then."

"Ullr says Odin's getting impatient. He didn't like your not coming to mess with the rest, and now you've been holed up here for months with no results."

They were interrupted by Sudri, bringing with him a bent, grizzled old dwarf whose skin indicated he was one of the stone dwarves. "Andvari," Sudri announced happily. "Andvari, make some detonators for the boss."

Andvari tucked a chunk of flint into his mouth, followed it with iron dust, and chewed busily. He spat suddenly, dropping a few hundred tiny crystals into his open hand. Sudri picked one from them, put it into a powder-filled grenade casing, and squeezed the hole closed with his fist.

Lee gulped, but Leif was used to it. Some day he'd have to find what these original inhabitants of Asgard were made of; it certainly wasn't protoplasm. But now he gestured for the grenade. "How's it work?"

"You throw it. When you want it to go off, it goes off when it hits."

Lee grabbed it up and was out the entrance. A moment later, the explosion sounded, and he was back. "It works. I tried it without and with thought control. Only works when you mean it to.... Look, son, I'm late now. Make up some of these and send them over to Thor's place. It ought to keep them happy for a while."

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Sudri looked for Leif's nod, and dragged the old dwarf out after him. Lee downed the rest of the milk and grunted wearily. "Lord, Im tired! Tossing one of those axes around all day is work."

"You might try sleeping nights, then," Leif suggested. Lee laughed contentedly and stretched, before reaching for his big shield. Then he blinked at the three dwarves, loaded down with grenades, who came to the door to wait for him. He shrugged, winked at Leif, and headed for the entrance, the dwarves following dutifully.

Leif let the forced grin on his face die, and got up impatiently. If Lee was seeing Fulla, he didn't want to know about it. He'd seen her twice since the day of arrival, but each time she'd turned hastily and gone off elsewhere, without a word. It was a cinch that Lee wouldn't have been here all this time without feminine companionship, and most of the goddesses and valkyries were worth more by the pound than the looks.

Outside, the dwarves were busy making grenades under the direction of Sudri, while Andvari sat spitting out detonators. Leif pulled down his armor, stuck the automatic Lee had returned to him into a pocket, and went to the door. The brightness in the sky that substituted for a sun here was dimming, and the air was cool and pleasant after the closeness of the caves.

Off to the side, barely within vision, he could make out the valkyries and more energetic einherjar pairing off. Beyond that lay Thor's sprawling Bilskirnir, the most pretentious building next to Odin's. Leif grunted as he saw someone walking toward it, a figure that might be Fulla.

There was a sudden barking, coming toward him, and he saw Lobo galloping along, just as the dog seemed to see him. The next second, he was being pounced on, while a wet tongue ran over his face. Leif staggered backwards, grabbing for the dog. Then he stopped.

"All right, Loki, come off it."

THE DOG disappeared, leaving the sly god in his place, carrying a bundle in his arms. "Either you're getting used to illusions, Leif, or I'm losing such skill at the art as I have."

"Lobo makes a whining sound in his throat when he does that. What's happened to him, anyway? I haven't seen him in three weeks."

"Nor me in two. He's been in a fight with Odin's pet wolves, and Thor's patching him up." Loki chuckled. "Thor's getting a soft spot for the dog. First he carries him over Bifrost, then buys him from Lee, and now he plays nursemaid. Smoke?"

Leif stared at the cigarette package and did a double-take. His mouth watered at the sight, but he shook his head. "Not here, or we'd all blow up. You know we're making grenades, I suppose? Umm. How'd you get these?"

"I went back to earth to fix things for you, as I agreed. Did you know time is different there—that five of your days go by while one passes in Asgard?"

"I guessed it from the way my watch acted, and what I saw through the mirror," Leif admitted. He was outside, lighting up eagerly as Loki joined him.

"Umm. Some of your neighbors remembered me, and it was a bit difficult for a time, though they've already passed a law making all previous crimes of the winter outlawed. But I'm not bad at convincing men of things. And after the past months, food means more than hate, and your money is still good. I've hired Faulkner to guard your place and care for

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it. You're in China, by the way. Ha! A pretty girl, Gail Faulkner... I brought back twenty cartons of cigarettes. A hard habit to break, once it's started."

"Loki, why can't we bring up tools from earth? Cigarettes are fine, but—"

"Metal," Loki cut him off. "It resists the twists of Bifrost. Hoof-Tosser could carry you easily, but it took the help of two other horses to bring you, because of the metal in the automatic you carried."

"The valkyries come through wearing metal armor."

"That's elf-stuff, not regular metal. When Odin led us through Bifrost long ago, it was easier. Then Asgard seemed down hill from your earth, but now it is otherwise. There were nine worlds connected through Bifrost then. Now only Jotunheim, Muspellheim, and Niflheim are easy to reach. Your world is closing; Vanaheim, Alfheim and the other two are closed."

Leif let it go. Loki's sense of logic was stronger than his traditions, and if he said it couldn't be done, then there was no use trying the idea on others here. He puzzled again over the contrast between what mythology he remembered and the facts. There seemed to be a logical solution behind all the magic, and that might be useful, if he could find it. But it was like the shoes of the valkyries' horses. The elfs had made them, and somehow they could harden the air into a firm roadway back on earth, but nobody knew how; even the few surviving elfs from lost Alfheim no longer knew why they worked.

He'd learned a lot from Loki, but there seemed to be too much that even Loki didn't know. "How come Fulla takes care of the tree? I thought..."

"It was Idunn's task," Loki finished. "It was, until the valkyries picked up a certain hero who was also a fanatic priest of some odd new religion I note you still have. He raged first, then quieted down and turned into quite a poet, as well as hero. Bragi—he's the verse-cryer—took him in, and Idunn was all too willing to be kind to her husband's guest. Umm. Most kind. The priest got the chest with all the apples, and was across in Niflheim, next we knew."

Leif stared at Loki, shaking his head. He shivered as he remembered his vision of that place. Loki nodded.

"I said he was a fanatic. Tyr—the one-armed god—tried to follow, but it was too much, even for him. So—well, that's why we slept a thousand of your years. The scent awakened us when the tree bloomed again, as it does each such thousand years. Odin remembered another time, with a giant named Thjazi—Idunn blamed that on me, if your myths tell of it—when the apples were lost from Idunn's carelessness, so he sent her after the priest."

So Christianity hadn't killed off the Aesir, but only put them to sleep. Apparently a taste of the apples periodically was vital to life here, though Leif wasn't sure whether it was an actual need or only a habit-forming drug.

"Heimdallr says there's an eagle around," Loki commented idly, lighting a second cigarette. "A huge one. My changes may be all illusion, but some of the giant folk can change form, in time. It may be a spy."

LEIF SUDDENLY remembered something. He pulled a little telescope from his pocket. "A gift for Heimdallr." Even though Sudri had shaped the lenses in his bare hands over the fire, according to Leif's sketches, it showed a quite clear im-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

age. "Tell him it'll triple his sight, and maybe he'll gloat about it enough to stop hanging around spying on me."

Loki looked it over and tried it out. "A good trick. It may make him as much your friend as he can be. But if you're trying to get rid of me, I can take the hint—when I'm ready to! I found and read a rather interesting book on the care of fruit trees in your collection of books."

Leif kept a careful poker face, though it hit him. "So?"

"So I think Fulla is due for a surprise. Strange. We never could get the seed to produce a tree with the same fruit, and now I find that's only normal. But we didn't know about grafting, though it's too late for that this blooming. Still, it seems there are many things that can be done to better the yield. Well, I'm back to earth, for a little while. Good luck with the tree."

The god chuckled, and again the form of Lobo went off through the dark.

Leif picked up a sack of chemicals, a crude spade and saw, and headed out through the gathering dusk toward the tree. He'd been examining it for some time, and the samples of dirt from around it had confirmed his suspicions of the trouble. Loki had guessed right, though he hoped none of the others got the idea. They were suspicious enough to kill first and examine motives afterwards.

But it was as nearly dark as Asgard ever became as he reached the tree. Against the glow of the sky, he could see the worn old limbs, and the dirt in his fingers smelled wrong to his nose. It was a shame to neglect a fruit tree, and the farmer in him hurt. Besides, if the gods were to win the Ragnarok, they'd need more strength than from green, stunted apples.

He spaded in the fertilizer, which the dwarves had made to his specifications, getting the feel of the earth again. It was pleasant, after the crazy life he'd been leading. He finished that, finally, and began carrying water in the leather sack, washing the fertilizer in. Sometimes lately he even began to believe that the gods should win the war for Earth's good. Afterwards—well, he had one wish. Maybe something could be done with it. And he no longer was sure the gods could take Earth; they were a lot less powerful than he'd first thought. And they were lousy horticulturists!

He climbed into the tree and began sawing off the dead wood, pruning it back. It was a smallish tree, completely unimpressive, and the work was less troublesome than he'd expected. At least, the armor protected him from sharp twigs, as he'd thought. He painted tar over the cuts, hauled the brushwood away, and stood back, examining the tree again from the ground. It looked lean and plucked now, but the dead wood wouldn't sap all its energy, and the ground would nourish it.

Finally, he wrapped the spade and saw in the sack and headed down the trail. Luck was with him, it seemed. None of the gods had spotted him, and Heimdallr was probably busy with other things, not looking this close to the center of Asgard.

He turned around a bend in the path and collided sharply with the figure of a woman! Then, as he bent to help her up, he saw it was Fulla!

CHAPTER VI

SHE WAS moaning slightly as he lifted her, and she winced as he started to release her. Then she stood upright, and he took his hands away.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

She started to step toward him, and moaned again, stumbling. He paused, irresolute, but only for a moment. The next second, he had scooped her up into his arms and was carrying her off the trail, to a spot where he'd seen a smooth, mossy section a few days before. As he moved with her, she glanced up, and he realized his face must show against the sky. She jerked a little, before sinking back agains his armor.

"What's wrong?" he asked, as he dropped her gently onto the moss.

"It's my ankle. I twisted it. It's nothing—it'll be all right in a few minutes." She winced again as his fumbling fingers found the ankle. "No, don't stop. It hurt at first; now it feels nice, Lee."

Lee? Of course, they looked and sounded alike, except that their attitudes colored their expressions. He puzzled over her choice, until the clinking of his armor penetrated his senses. Naturally—he'd left it off since the first day, while Lee had apparently grown into his. She'd guessed by that.

"Better?" he asked.

"Mmm. Sit here, Lee. I thought you were with Gefjun tonight. She'll be jealous if she finds you're out alone—worse, if she finds you with me."

Leif grinned, remembering Gefjun, another of the virgin goddesses. So Lee had been doing all right, even if he hadn't been seeing Fulla. He tried to call up some of Lee's mannerisms. "Let her be jealous then. Who kissed me first, you or Gefjun?"

"True." She slid downwards, and closer to him. After the unwashed naturalness of most of the females of Asgard, he was surprised to notice that her hair was faintly and pleasantly fragrant. "I began to think you'd forgotten that kiss, Lee Svensen."

"Had you forgotten, honey?" It wasn't good, being mistaken for another man, but it was better than nothing. The armor was suddenly hot around him, and he was sweating. He reached for the buckles.

She bent to help him with it, and her hands were caressing. At last it was off, and she was closer. Her voice was a whisper. "I haven't forgotten, Lee. But even a goddess can't remember forever—one kiss."

He tried to laugh as Lee would have laughed. It sounded hollow to him, and the blood was pounding in his ears, but it seemed that she accepted it as Lee's laugh. "There should be a moon now," he tried to say lightly, as he bent forward. "With that, maybe this Asgard of yours could be heaven."

The moon had nothing to do with it, though, as he discovered. It was heaven—a strange, bitter heaven. He tried to forget that she thought she was with his brother, and failed; but even that bitterness couldn't steal all the pleasure from him.

She sighed softly as he withdrew reluctantly, letting his lips break slowly from hers. Then her arms tightened again, and she was pulling him down, her mouth demanding. Her breasts strained tautly against him as his hand tightened on her back, and her body turned slowly, bringing the flat of her hips against him.

"Oh, Leif! Leif!"

FOR A SECOND, there was only the caress of her voice, small and hoarse in the darkness. Then the words penetrated. He jerked suddenly away, freeing her. "You knew me?"

She shuddered, pulling herself slowly up. Leif fumbled for a cigarette, and he could see her face white and tense in the light of the match. Her eyes widened as he drew in the smoke, but it was unimportant to her now. Her lashes were dropping as the match

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

went out, her fingers twisting into odd shapes. Her voice was tiny and lost in the space around them.

"I knew, Leif. I saw you going this way—and I started to follow, to watch you and—hate you. Then I didn't want to see you. I went back—but I came, after all. I thought I'd never find you! And I didn't hurt my ankle."

"But what about the Lee act, then?"

"I had a plan—I thought. If I met you and you thought I took you for Lee. . .then it really wouldn't count." Her voice was even lower, and she hesitated. "I knew how you felt, or I thought I did. And I wanted you to suffer. I couldn't mix with Loki's treason, but if you thought it was Lee I—liked. . .somehow, it would be all right for me, then. And you'd be even more miserable afterwards. Oh, Leif, I—

"And then—then I couldn't pretend," she finished. "You could hate me, Leif."

He tossed the smoke aside and turned toward her. "I could. I don't."

She sighed, slowly relaxing back onto the moss. "Fifty thousand years is a long time to wait." She pushed the hair back from his head, her long fingers lingering and trembling faintly. "I'm glad I waited, beloved."

DAWN WAS creeping up as Leif tossed the last cigarette in the package aside and climbed to his feet, reaching for his armor. Fulla stirred, watching him, before putting out her hand for him to lift her. "We'd better be getting back," he told her. "I should have taken you home hours ago."

She nodded, but pulled his arms around her again, snuggling against his shoulder. Her cheek rubbed against his arm, and he lifted one hand to the back of her neck, drawing his fingers around and past the lobe of her ear. Suddenly he felt her body stiffen. She began drawing back, her hand slowly going to her breast, as she slid out of his arms.

"My tree!"

He'd forgotten the blasted tree, but he looked now. Seen in the full light of day, it was a bleak sight, with most of its branches missing, and the thinness of its foliage showing fully. Every scar he'd put on it stood out clearly. Then another gasp came from Fulla, and he looked down to see her staring at the sack dropped on the trail, with the saw sticking out from it.

There was disbelief in her voice. "You! You ruined the tree—the life of Asgard! My charge. . .and I—I. . ."

He caught her shoulders, pulling her around to face him. "Of course I did, Fulla. It was dying from the deadwood, and from lack of food in its soil. I did it because I couldn't see you failing your job. Damn it, I did it because I was in love with you."

"My tree!" She sagged in his hands, slipping out of them, and falling flat on the moss. Her eyes remained fixed of the tree, and there were tears in them, while sobs slowly began to wrack her body. "And I trusted you—loved you. Oh, don't worry, Loki's companion! You succeeded in your plan. I won't tell the Aesir on you. You made sure of that! But I hate you, hate you, hate. . . ."

"Fulla!" He bent toward her, but she screamed.

"Don't you dare touch me!"

"Fulla! You said you loved me. Now you jump to the first wrong conclusion against me. Will you listen, let me show you what I did and why? Or are you going to go on believing the worst—on circumstantial evidence?"

He bent again, and this time she didn't scream. Instead, she turned

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

viciously, swinging her right hand—with a rock in it.

Leif stood back coldly, spitting out a tooth and blood without feeling the blow. He was numb and empty. "All right, Fulla. Tell your damned gods, if you like. And when you find what a fool you've been, remember I tried to tell you the truth—and that I did love you. I thought you were someone I could hold to. I thought a lot of fool things. I should have known you were just a goddess, like Frigg—no good without your pedestal. Well, if you ever want me, whistle. It'll give you something to do while you wait fifty thousand more years!"

He picked up the sack and slapped it over his shoulder without looking at her. Her painful sobbing went on as he turned down the trail, and something in him hated the sound and ached to go back and still it. The larger part of him was frozen with hurt and anger. Love without respect and trust might do for the gods, but he wanted more than that out of life.

Heimdallr and Loki were doing the impossible by standing amicably together at the foot of the path as he came out of the woods, but he barely noticed that the self-styled son of nine mothers was busily polishing the little telescope and beaming. He nodded toward them and went on grimly, heading for the workshop. Sudri would look beautiful after this past night.

"Leif." Loki was running to catch up with him. "Arroo! I'd better get our lady Fir to bandage that lip. It looks as if Thor had hit you."

"Grin just once, Loki," Leif told him, "and you'll wish Thor'd hit *you!*"

LOKI BLINKED and stepped back, his eyes shrewdly appraising, and a touch of malicious amusement showed on his lips. "Oho! So. And our farmer is suddenly turned into a berserk hero. Well, Odin will be happy. . . ."

His grin slipped off as Leif moved toward him. There was a haze in the air and a rattlesnake drew back fangs and threatened, where Loki had been. Leif reached for the automatic, judging where Loki must actually be, and the snake turned back into the god, this time with no amusement. "Enough, Leif. Sometimes my mouth is a fool. Consider it unsaid."

The anger suddenly evaporated from Leif, taking most of the numbness with it. Only the pain was left. He could feel the starch running out of his system, and made no effort to stiffen again. Loki's eyes were sympathetic now, as he slapped Leif gently on the back.

"There was a girl once—about so high—" he said casually, indicating the point of his chin, but there was a curious edge to his voice. "Only she didn't stay that high. Giants mature at no greater height than ours, but like the snakes of old, they keep growing. Sigyn was seventeen feet when I saw her last; she called me a ridiculous runt and threw me out. Funny how I still remember the girl she was. Well. . . ."

Something like the boom of thunder crossed with the crack of a board breaking rolled over them then, in sound waves that were physical enough to stir the leaves of the trees. Leif snapped out of his trance.

Above the entrance to the dwarf cave, a plume of smoke was rising, with a billowing cloud under it that still contained bits of timbers. The powder there had obviously exploded, all at once.

A picture of Sudri's misassorted body coming down in pieces jumped to Leif's mind, and his legs began moving. Loki looked startled, and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

As he strode along the path a coiled rattler suddenly materialized in the air...

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

then went along, matching his leaps. They came over the rise of ground, and were among the hillocks, darting along the path, while the acridly sweet smell of powder hit their noses.

Leif gave a quick look to the leaning timbers, and then was inside. A yelling voice reached him, and he turned toward it. Sudri was bent over the broken form of Andvari, shouting in the glottal stops and Bantu clicks of the stone dwarf dialect, but the mouth of the old dwarf barely moved.

Surprisingly, the damage hadn't been as great as Leif feared. The solid stone wall separating the front section from the rear still stood, and the explosion had reached only the front wooden entrance. There were no other bodies.

Sudri saw him then, and faced him. "Someone came in and threw a grenade. I yelled. Andvari held back the detonator. It was still partly his to control. We all went to the back, but he had to stay. He was too old to hold it long, and it went off. Not too bad. Most of the powder was in the grenades, already stored in the rear. But you see how it is."

Leif nodded and turned to the old dwarf, whose pain-filled eyes were raised to his. "Who?"

Sudri shrugged, but the old one motioned, and Leif bent over. There was a gasp as the stone dwarf fought with the unfamiliar soft sounds so foreign to his speech. But he formed them and Leif heard.

"Vali Odinsson."

Then he dropped back, dead before his head touched the floor.

Sudri touched Leif reassuringly. "Don't worry about the detonators, boss Leif. Andvari told me the trick in his speech. I don't understand all, but any stone dwarf will. We have lots of detonators, already."

The foreman turned, shouting back, while the cowering dwarves began to come out, staring at the wreckage. "You, Bifurr, Nori, Onarr, Mjodvitnir, Vindalfr, Fundinn, Throinn—you fix things. We'll be in production in three hours, boss Leif."

"Yeah," Leif said absently, still staring at the old dwarf. He'd only seen the grim old figure a few minutes, but....he wondered what he would have done with a bomb he could delay but not stop. Damn Vali!

HE HEARD the sound of others behind him, and swivelled on his heel to face the crowd that was collecting. "Lee, you can stay if you like—Thor, too. The rest of you get the hell out of here before I set Sudri's crew on you with grenades. Gods, heroes, whatever you are, beat it! And from now on, anyone who comes too near this place—even Odin himself—without my okay, gets a grenade in his guts."

Thor came up, stern questions in his eyes. "Why, Leif Svensen?"

Loki spoke quick words into the ear of the black-bearded god, and Thor nodded. "So? Then good. I have little use for a leader who will not safeguard his men, even if they're but dwarves. Back, all of you, before I try my fist on you."

Leif could see Fulla racing up as the crowd turned, her eyes darting toward the entrance and striking his. He tightened his lips and swung back to the cleaning up that was going on; a moment later, he saw her running off again, toward the path to a tree, while the crowd grudgingly left.

Vali! It would do no good to confront him, since he was one of Odin's sons, and Leif had nothing more than the word of a dying dwarf, heard by himself and apparently by Loki. Or had it been only Vali? He'd warned Loki about the danger from a spark here, and Loki had known what a

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

grenade could do from Leif's words. Leif no longer wanted to distrust the sly god, but....

"Look!" Loki caught his arm and pointed. High above, gliding like a vulture, a dim speck showed in the sky. From it came a harsh, mocking cry. "The eagle—much too big for that height, too. It must be a spying giant."

"Fine," Leif commented. "So he knows we have boom stuff. He didn't set this off, though. All right, Sudri, carry Andvari's body back gently. We'll bury him in whatever rite his people use. Lee, sometimes I'd like to be one of those blooming berserkers. But there's nothing you can do here, if you've got other business."

"I'm supposed to demonstrate the grenades," Lee said. His face was serious, and he tipped his helmet as he passed the body of Andvari. "Let me know if you need help."

Leif moved back through the caverns, examining the packed grenades that hadn't gone off; production had been fine. He kicked a small sack on the floor and swore at its weight. He stopped to toss it aside, just as Sudri spotted him.

"No!" The dwarf was suddenly under him, waving excited hands. "Bad stuff, boss Leif. It's okay for dwarves, not for men. That's the U-235 you wanted. Half a ton. It keeps better in small pieces."

Leif gulped, and nodded. "It does, son—it certainly does."

He should have known better than to try sarcasm on a dwarf; he'd mentioned it, it was an existent isotope—so here it was. Half a ton of it, in little bags of less than critical mass. How did the dwarves know that, and what did the gods need of humans to show them how to beat Ragnarok? Then he realized that some dwarf had probably gotten too much together in assembling it, but that it wouldn't explode when brought together slowly—that had to be done instantly, before its own heat boiled it away. Apparently the dwarves were radioactive-immune.

He watched them storing it away carefully, and went back to superintend the reconstruction, noticing his tooth was already growing back. Idly, he heard the detonation of grenades, and wondered how the gods were impressed by Lee's display. There were explosions again, followed by a long, sustained yell.

The walls were almost whole once more when Reginleif came up, stopping well beyond the entrance and hallooing.

Leif shrugged and moved out, with Loki behind him. Now what? They'd probably heard about the tree—unless it was something worse.

"If I don't come back, Sudri," he called, "look me up in Niflheim."

But it wasn't a very humorous crack. It had too much possible truth in it.

CHAPTER VII

LEIF'S eyes skimmed over the crowd as he reached the Yggdrasil judgment place, trying to estimate where he stood. It didn't look good. Loki whistled faintly in surprise behind him.

Frigg was speaking to Odin, and her righteousness was all too evident. Beside Odin, Vali and Vidarr were nodding vigorously at what she said. Odin's shoulders were slumped more than usual, but they straightened as he saw Leif coming, and a gesture cut off the words. Heimdallr was intently polishing the lens of his new toy, and his face was inscrutable.

Fulla sat at the foot of Frigg's dais, her face lowered. She glanced up at the stir around her, and her eyes met Leif's for a moment. Something that

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

might have been the beginning of a wan smile touched her lips, but vanished as he stared at her.

Lee started toward his brother, and Thor lifted himself from his seat holding Lobo's collar in one hand, the big hammer in the other. A lithe young husky Leif recognized as Thor's stepson, Ullr, scratched his head, and moved with them. They lined up beside Leif.

"Tell 'em to go to hell," Lee whispered.

But Odin's voice cut off any chance to ask for information.

"Leif Svensen, a time has come for judging. There is treason in Asgard. I have promised to my son Thor that your words shall be heard. But as a pupil of your patron Loki, who shall believe those words? Speak, though, and defend yourself."

"Nice unbiased justice, Valfather," Leif commented disgustedly. "Well, I've had a sample of Asgard's judging before this, today. I should have expected it. What in hell am I supposed to have done? If you mean the explosion in the workshop, there was treason, but none of my doing. You might try cleaning out your own household, on that."

He saw Fulla's face whiten at his reference to the morning, but his eyes snapped back quickly to Odin, whose one eye seemed to be shining from a thundercloud. Vali came to his feet, his ferret-face tautening. Leif stared at him, spat on the ground, and rubbed it out with his foot. But the son of Odin only grinned nastily.

"You are accused of trying to destroy the einherjar," his bland voice announced. "The grenades which you gave were to be safe when not thrown with intent to destroy. And, to be sure, they behaved well when your brother handled them. But Vidarr and I have been given cause to suspect all is not well, and we demanded the right to test them. Behold!"

Leif's eyes followed his pointing finger to a gory mess on the ground near Odin's throne.

"Fifty or more loyal einherjar, Leif Svensen!" Odin took up the tale as Vali sank back to his seat. "From but two of those creations of yours, thrown by my sons. Nor can all my skill call them back to life again, scattered as they are. Shall we gather at Vigridr for the Ragnarok to find our weapons shall remove our heroes, leaving us defenseless before the Sons of the Wolf? Nor does it seem that your treason stops there. But speak!"

Leif turned his eyes to Loki, but the sly god was staring intently back down the trail toward the shops. Niflheim pressed close, and Leif could feel the sickness of that vision stealing back over him. He turned to Lee, to see his brother holding a single grenade in one hand, doubtfully figuring the chances. It wouldn't work, Leif knew; there'd be some left, at least—enough to send them both to Niflheim if Lee threw the grenade. But—if he could get his hands on it and move back from his small group of friends, it could put him in no condition to be revived for Niflheim. Compared to that place, death would be a vacation.

HE MOVED slowly toward Lee, facing Odin again. "Okay, I suppose you expect me to scream protests you wouldn't believe anyway. What good would it do? All right, so the mishandled grenades wiped out some of your einherjar. And so I did mess around with the sacred tree of yours...."

Fulla was suddenly erect, screaming something, but the clamor of the others drowned the words. Leif slipped the few remaining feet to his brother and grabbed the grenade. Now if he had time to get into clear space....

"More grenades, boss Leif?" Sudri's

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

voice asked roughly beside him.

He jerked his head down to see the dwarves mixed with the little group around him. Loki was grinning, rubbing his hand over a grenade, and the dwarves all held weapons of their own. But before Leif could adjust his mind to the new facts, Loki's voice cut through the din.

"It would seem that the question is now whether Leif Svensen can be sent to Niflheim safely, Odin," he announced. "There are those present who feel that justice has not yet been rendered, and among them is Oku-Thor and myself. You have seen what two of these can do. We have scores of them, and the skill to use them, which it would seem Vali and Vidarr lacked. Am I right, Thor?"

Thor nodded. "The grenades worked when I tried them, as well as Mjollnir itself. Until the facts are clear, this man has my protection, Father Odin. I demand justice."

Surprisingly, Heimdallr was coming toward them, pulling a huge sword from its scabbard. There was nothing foppish about him now; the softness seemed to have vanished, and the sword was a living thing in his hand. He took his place as far from Loki as he could, but clearly lining himself up on Leif's side.

Fulla had also left the front and was moving to them, but she hesitated as Leif faced her, pausing irresolutely.

"But the tree?" Odin was unused to having his court divided, and uncertain of the menace confronting him. Most of the other gods were shifting unhappily, not knowing what to do. "Thor, you heard him admit to defiling the tree."

"Then I say send one to the tree to examine the damage first, and judge later!"

Heimdallr waved the big sword casually. "No need. I've been watching the tree through this bit of magic which our young warlock rightly thought useful to one of my skill." He pulled it out and stared through the telescope, preening himself a bit as the attention of all focused on him. Leif still couldn't see how his sight could penetrate through the obstacles between him and the tree, or how the telescope could help there; perhaps it was extra-sensory sight, and the telescope helped only psychologically. But Heimdallr seemed satisfied.

"The apples are ripe, and new shoots come forth," he announced. "It would seem Leif Svensen has certain abilities with such things."

Another yell went up from the gods, and the ravens suddenly left Odin's shoulders, darting out toward the tree. Fulla's face abruptly came to beaming life, and she sprang forward toward Leif.

He grinned crookedly. He'd expected that. Now that the weather was clearing, she wanted to be out in the sun. He jerked his thumb back at her, and swung on his heel to face the more forthright figure of Thor.

He wasn't too surprised when the ravens came back, each with a yellow apple in its beak. Time here could do funny tricks, it seemed, such as compressing weeks into hours for the fruit to respond to his treatment. Odin took one of the apples, smelled it, and bit into it. He bit again, and ten years seemed to fall from his shoulders. Others were reaching for the apple, but he shook them off.

"Leif Svensen, you have permission to stand beside us."

Leif scowled, but Loki's hand shoved him forward, and he moved up to the seat, mounting the little dais. Odin's hand reached out with the apple, and there was only benevolence on the god's face.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

REACTION was hitting at Leif, making his legs tremble as he stood there, and the bravado that had somehow lasted through all the danger was gone. But as he managed to control his teeth and bite down on the apple, a sudden raw current of power rushed through him. He swallowed automatically, while a warmth and strength diffused over him. Whatever was in the apples, it was powerful stuff.

"For this, Leif Svensen," Odin told him, "I would gladly forgive many things. And because this was no traitor's act, I am moved to accept Loki's explanation that it was but lack of skill in the hands of my sons which caused the grenade to wreak such evil. Or perhaps the influence of the spying eagle Heimdallr has seen. The matter of turning some of the Aesir away from me is otherwise, but there was some justice on their side. You may go back to your work, and we shall consider the events of this day to have struck a balance. I declare judgment, and the Thing adjourned."

Leif stepped down, considering. But this was no time to try to take care of Vali. He slipped back, letting his eyes flicker across Fulla's face quickly, and rejoined Loki. The god was turning the dwarves back hastily toward the shop, and Leif realized that it might go ill with them if they stayed around to remind the Aesir that they had come out to rescue him. He began leading them off quickly, while the gods clustered around Odin, waiting their turn for the apples.

But Loki was back with him before he reached the workshop, and Ullr had followed him.

"The youngster has brought something forth which is unexpected in the Aesir," Loki told Leif, grinning. "He's had an idea! And by now you know how rare that is, and why I spend so much time with you. Well, out with it, Ullr."

"I was thinking that those grenades are good things. But even better would be arrows, made hollow, and with the same stuff inside, to explode when they hit. Can that be done?"

Leif took one of the arrows which the god held out and examined it. It was thicker than most he'd seen, and he estimated the matter quickly. The dwarves could produce crude sheet metal, and they could weld it in some mysterious way. The inner side wouldn't have to be perfect for this, provided it was ground straight and in balance on the outside. He passed it to Sudri, and the dwarf nodded his big head, while his mouth opened in a grin that went three quarters of the way around his neck.

Later Leif watched Ullr go off with Loki to try out the new arrows. Since they wouldn't explode until wanted, the same ones could be used for target practice. He turned back to his private room, rebuilt and relined. On impulse, he stripped the wristwatch from his arm and handed it to Sudri.

"Nice work coming up with those grenades. Thanks."

The dwarf gobbled incoherently, strapping it onto his thick wrist and listening to it tick. He'd been fascinated by it since he'd first learned its purpose. Leif grinned and shut the door after him. Sudri could use it for an interval timer, even if it didn't keep Asgard time.

HE PICKED up the mirror and scowled at it, jerking it quickly past his eyes. But even the brief glimpse of Niflheim was too much. Shuddering, he put the mirror away. Well, he'd passed the first crisis, and he knew who his friends were.

Loki apparently could be trusted in a pinch; the trouble was that he was

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the most intelligent of the gods, and the only one to prefer wit to muscle. Maybe it had led him into some of the tricks of which the legends accused him, but it also put him firmly on the side of anyone who could meet his intelligence. Thor was a god of absolutes, but he could be trusted so long as someone didn't pull the wool over his eyes. Ullr was so hopped up over having become an inventor that he'd go to any lengths, practically, for the man who could make the arrows. And Heimdallr was more or less on Leif's side—though his foreknowledge of the condition of the tree made his position a little doubtful.

But the rest of them would be just that much more against him because of the split that had occurred. They wouldn't like the idea of a mere man challenging them and getting away with it. Odin might be happy now with his apples, but the best that could be said for the day was that it had produced another truce. And there was the combination of Vali, Vidarr and Frigg lined up against him.

The next time, there wouldn't be any convenient apples to sway their decision.

He got up as a halloo sounded from outside and went out for his supper. Then he stopped in the doorway, staring. Reginleif had been replaced by Fulla. Well, why not? Wasn't he the boy who'd saved her precious tree and hence assured her of her new job?

He cursed the weakness in him that made his hands tremble as he took the bucket and platter from her.

"I found some vegetables," she said tonelessly. "Loki told me you wanted them, and how to make what he called a stew. Perhaps Loki is not all evil. There is fresh milk, not mead. I—I've never eaten stew."

He stared at it slowly, noticing that there was something that looked like cabbage and carrots mixed with the rest, as well as grain to thicken it. "Okay, wait a minute."

He went inside, and came back again a minute later. "I've taken half of it—that's plenty. You might as well have what's here; better for your complexion, anyhow, than straight meat."

She'd seized the bucket as if to dump its contents, but now she let it fall to her side. Without a word, she turned slowly and headed back toward the main buildings.

Drat women, goddesses or otherwise! He clumped back in and started to eat the stew. It wasn't too bad, but each mouthful was harder to swallow than the one before. Finally he pushed it aside and picked up the mirror.

He found what he was seeking at last, and carefully watched operations that were supposed to be so secret that not a hundred men knew them fully. Obviously, the making of atomic bombs had been simplified considerably since he'd first read the descriptions of them. In a pinch, the dwarves could turn them out. The means for bringing the two masses of U-235 together violently weren't too difficult, and the same trick detonator would set off the charge that would start the operation.

Just what could be done with them when they were made was another matter, though it seemed a shame to have all that power lying around without using it.

He tasted the stew again, muttered to himself, and began putting on his armor. The trouble was, he needed some company. And the solution to that was to go up where Lee and Lobo were, at Thor's place. He clumped out, automatically started along the trail that led to the tree, and then swore again as he struck out

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

firmly for Bilskirnir.

REGINLEIF brought his next meals to him, but the vegetables and milk continued. If Fulla was preparing the food, she at least showed signs of being a fair natural cook, since the food improved, and began developing a certain amount of variety. Leif avoided Loki's eyes when the god was around at the arrival of the meals.

But the work in the shop was going well enough. They had grenades and to spare, as well as a good supply of the explosive arrows. Leif delayed the final decision on the U-235 bombs, but finally called the dwarves in and outlined it. He was right—the things were within their powers, though he had no way to test the finished ones, and could see no way to use them. Still, it kept the shop busy, and would furnish a good talking point for any trouble that might arise.

The group at Thor's proved as dull as his own company, since Lee was chiefly worried about some means of getting a measure of efficiency out of the heroes, and Thor's lack of humor grew ponderous in time. Leif even tried spying on the news back on earth, either from the few newspapers that were beginning again, or by watching the events as they happened, but the difference in the time that had passed there and what he felt had passed made it all seem unreal. Things had been unbelievable during the winter, but the worst was now past, and the prophecy had been wrong about there being three such years with no summer. The lethargic hopelessness of near starvation—and real starvation—was giving place to a surprising cooperation in getting back to normal life, but he could work up no real interest in merely watching it. If he could get back to his farm....

Finally, when Reginleif brought a rather good meat loaf with vegetables on the side, Leif gave up. He told himself he was sick of being reminded of the fool he'd been, and that something was going to have to be done about it. He'd see Fulla for once and for all, and take care of things properly.

He felt better as he buckled on his armor and went out the doorway.

Then he paused. Coming toward him in the gathering twilight, with a happy smile on her lips, was Fulla. Beside her, Vidarr strode along, motioning down toward the shop. They were still a couple hundred yards away, but obviously coming toward him. Leif started to duck back, just as Vidarr caught her arm. Leif was puzzling over the two of them together when a sudden cry from above jerked his head up.

Huge against the little light of the sky, the giant eagle was plummetting down, headed straight for the two. Leif fumbled for his automatic, yelling. But Fulla had seen it already, and was trying to run. The wings of the bird suddenly shot out, stopping its fall, and it drove toward her, blotting her from Leif's sight. Then it was lifting. Fulla was clutched firmly in its talons.

And still strapped at her side was the chest that held all of the apples.

Leif fired at the eagle, knowing the distance was too great, and took a shot at the running figure of Vidarr—futilely. He could see the eagle rising rapidly now, heading out toward the wall. Another cry came from its beak, and it began to struggle heavily. There was a corruscating flash of rainbow fire, and the eagle and Fulla seemed to dwindle into nothing.

It had crossed Bifrost into Jotunheim, taking Fulla and the apples

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

with it to an unknown fate!

CHAPTER VIII

FOR A FROZEN second, Leif stood there cursing himself. It was obvious that Vidarr had told Fulla Leif wanted her, and she had been coming to a tryst that would have been pointless if he hadn't been such a pig-headed fool. Now, without the apples, the gods would be sleeping push-overs for the giants, leaving Bifrost wide open for them to get on to earth. He'd seen enough of the giants through the mirror to know what that would mean.

Maybe he couldn't win Ragnarok, but he'd done a nice job of losing it—in the worst possible way.

Then he swivelled and dashed back into the shop, tossing savage words at Sudri, and grabbing for the mirror.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Leif arrived a moment too late, but sent shot after shot after the mighty bird as it flew away carrying the screaming girl

He took one quick look, spotted Fulla and the eagle in it, and tucked it into his pocket. Sudri was pelting away toward Bilskirnir as Leif came out and struck across the field at a full run, cursing the weight of his armor, but having no time to remove it.

He could smell the stables as he came near them, and he turned in hastily. Reginleif was busy currying one of the horses, while the goddess Gna was watching. Leif grabbed Gna's shoulder and swung her around. "Which is Hoof-Tosser?"

She started to protest, but her eyes had tipped him off. He dropped her and headed for the horse. Gna came after him, trying to hold him away, but he had no time for fooling. He planted his fist under her chin, watched her crumple, and faced Reginleif. The valkyr blinked, squirmed as the automatic came out, and then plunged in to pull the horse out.

"Saddle him!"

She obeyed, and Leif came up. Hoof-Tosser was skittish, but Leif knew horses. He gentled the animal, forcing his excitement away, speaking into the stallion's ears. Then he swung into the saddle, lifted Hoof-Tosser onto his rear legs, and pivoted about and out of the stable.

He headed straight for the wall, wondering how to steer upwards. He wasn't even certain that the animal could lift into the air, except on earth, as it was mythically supposed to. But it seemed to understand when he drew back on both reins, made a convulsive leap, and was air-borne. Leif had no idea of how to cross Bifrost or whether the armor he wore would cause trouble, but it was too late to wonder.

"Jotunheim, Hoof-Tosser," he ordered.

The horse whickered, then drew back its head and screamed. Leif tried to imitate it, and realized it wasn't unlike the cry Reginleif had given in going from earth. Already, the air was taking on the rainbow ripples he remembered. His armor was growing warm, and there was a queer twisting resistance, but the steps of the horse didn't falter this time; Loki

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

had been right in saying entrance was easier to the other worlds than to earth.

Under him, Asgard turned to nothing but color ripples, that disappeared in turn; Leif looked down to see a cold grey landscape under him, scraggy with huge boulders, and looking like something left over from a period of glaciation. He glanced at the mirror now, turning it until he could find the giant. But it refused to work—naturally, since it worked only *through* the dimensions!

Far ahead, there was a victorious scream, such as a bird might make, and Leif headed the horse toward it. But though Hoof-Tosser went on eating up the distance, he could see nothing of his object. He shook his head, to swing suddenly at a call from beside him.

For a second, he thought it was the eagle, only to realize that this was a great hawk. Hoof-Tosser nickered, and the hawk drew up. "You're headed right, Leif," Loki's voice called.

THE HAWK somehow landed on the horse's back, and began to struggle. A fine membrane seemed to peel off, and Loki emerged from it, stuffing a small bundle into a pouch he wore. "Freyja's hawk garment—elf work at its best. Do you know what you're getting into?"

Leif shook his head.

"I can't help you," Loki told him. "At least, not inside one of their forts. They'd smell Asgard on me. You may be able to pass. Look, Sudri only barely told me that you were off after Fulla and the apples. Who's responsible?"

Leif told him, and the god nodded. He began to fill Leif in as best he could on the general habits of the frost giants, wasting no time on anything but practical details. Most of his knowledge was unencouraging. Then he pointed down, and Leif could see a rugged castle below, apparently hewn out of one of the great boulders. He made out a lighted courtyard of some kind.

Loki had the reins of Hoof-Tosser and was urging him down. "We'd best land yonder, and you walk the rest of the way. I'll try to conceal Hoof-Tosser and work my way close. If you get free, whistle three times and the horse will come. Don't worry about me—I can find my way back. Just get Fulla to Asgard; those apples are our first worry."

Leif slipped from the horse's back, shaking his head as Loki held out a sword to him. He'd do better with the automatic. And if he was lucky, maybe he wouldn't need even that. These were the giants near Bifrost, picked to resemble and spy on the gods—and through their own careful breeding, he wouldn't be too unlike some of them; according to Loki, the barely mature giants were no bigger than a man. He might be able to pass as one.

Getting into the castle proved easy enough. There was a spillway for rainwater at the side, and he hoisted himself up and through the wall. Light shone out from an opened door, and there was no one in the courtyard. Inside sounded an excited babble. Leif gritted his teeth, and stepped in as if he had business there. But no one was looking toward him.

All he could see was a pair of twisted, hairy legs blocking the door, and supporting a massive body. Then they moved, and through them Leif could see bits of giants and chairs, and something at the far end that looked like a glass case with a big sword in it. The top of it was suddenly opened by a huge hand, and Fulla's chest of apples dropped beside the sword. There was a hoarse bellow of laugh-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ter, and Fulla's voice shrieked.

Leif twisted through the legs of the giant, and moved into the room, an immense place, well packed with giants of all sizes and types, some with tusks, others with long fangs, and a few that looked almost human in a bestial way. All were intently watching a thirty-foot giant at the head of the table, who was casually holding Fulla in one hand. The other hand came out, swishing the thick hairs on the knuckles across her face. She flinched, twisted her head, and spotted Leif.

She covered the expression almost at once, but it had betrayed him. The giant over Leif looked down and yelped. "Baldar!" Leif felt a taloned hand suddenly grab his middle, and he was sailing fifty feet through the air. "Hey, Skirnir!"

The giant who'd held Fulla reached out a hand and caught Leif. The breath whistled from his body, and his ribs creaked, but the hand had cushioned the shock. The giant turned him over, staring out of narrowed eyes. "Hmm. No, not Baldar, though he looks something like that one. New one, and he doesn't smell like a hero, either—real flesh. Thought I'd learned every As when I was a kid spying on them as Freyr's messenger."

From the back, a croaking bellow came, and Leif saw something that was neither eagle nor giant, but turning slowly from one to the other. The thing croaked again, and its head became all giant. "It's the warlock—Leif they call him. Hai, Vali said he'd come."

"Of course I came," Leif yelled. The quiver that was running through him wouldn't show so much if he bellowed back at them. "As a warlock—Witolf's kin—do you think I'd work willingly for the Aesir? When all the confusion came up, I lit out over Bifrost for your group on the double."

SKIRNIR laughed heartily, slapping his thigh. He wasn't bad looking, in spite of his size, and he was unlike all the others in wearing a smile. But under it, there was something Leif had seen only in the eyes of a man who had tried to beat a dog to death. That man had been smiling, too, until Lee had knocked him unconscious.

"It won't work, warlock. We heard of you from Vali and Vidarr. Here, since you love the wench, join her. We won't separate you. We'll roast you together, and after you tell us of Asgard, I personally will eat both of you. How's that for real uniting?"

He chuckled at his humor. Fulla moved toward Leif, her legs tottering under her. Leif's were in a little better condition. He was reasonably sure the giants didn't eat people, but a lot surer of the sadism behind the taunt. Fulla's eyes were hell-wracked as she slumped against a big mug beside him.

"I got you into this. Oh, Leif, I'm such a....."

Then she screamed, and Leif saw Skirnir picking up a huge ember in tongs, to begin moving it toward them. He reached for his automatic, yanked it frantically out and squeezed the trigger. Nothing happened! He'd forgotten to reload. Skirnir had started to duck, dropping the ember, but now the giant grinned again. He flicked the gun from Leif's hands and pulled the pouch of clips away in a snapping motion.

He tossed the ammunition into the case with the sword and apples, and tried to examine the gun. It was too small for him, but he seemed satisfied. With a malicious smile, he threw it back to Leif and reached for another ember.

A bellow came from the rear, cutting off his enjoyment of the scene. One of the smaller giants rushed up, tossing Loki's helmet onto the table.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Aesir!" he exclaimed loudly.

Skirnir frowned. "Damn! Vidarr swore he'd send them to Muspelheim after Surtr's tribe. No matter, they can't be in full strength, or they'd have struck. Here, Hrymr, throw these two into the cage and get our horses. We'll have to look into this."

Hrymr grabbed Leif and Fulla in hands that resembled steam shovels and began dragging them off. All three of his mouths were drooling as he tightened his grip. But a bellow from Skirnir ended whatever ideas he had. He clumped behind the case, into a series of corridors, down some stone steps, and back to a cave covered by a huge oak door. There he tossed Leif in quickly and sent Fulla after him, landing with a thud that threatened Leif's already aching ribs.

The big door swung shut firmly with a positive click of the lock, leaving the cell completely dark, while the giant's footsteps pounded off toward the others.

Leif groaned, and Fulla began to roll off him, taking more time than seemed necessary in the process. She left one arm over his chest, and her lips were beside his ear. "Leif, I'm scared!"

He chuckled wryly, forcing himself up on his elbow. "Then that makes two of us. I'm afraid I wasn't cut out for this sort of thing."

Leif got to his feet and lifted her up, testing himself and finding no bones broken. He was surprised to notice that the weakness wasn't bothering his legs now; apparently he was getting used to being afraid. But he still couldn't laugh at danger, as Lee did. Then suddenly he realized he had laughed—and wondered whether the heroes might not be laughing at their own knowledge of fear.

BESIDE HIM, Fulla caught her breath, snuggling against him. The warmly personal scent of her hair penetrated, even over the musty odor of the cell. He pulled her closer, his lips tautening in a twisted smile. If the giants were coming back soon, he'd probably be screaming in agony too intense for thoughts of her within the hour, but he didn't have to die now in anticipation. The future couldn't take away any pleasure from the present, at least, and only a fool would do less living than he could while life still stirred in him. He caught her chin, and found her lips in the darkness.

For a minute, it seemed to work; then a vision of Skirnir smiling and moving the ember forward captured his mind. He drew back, grimacing. This was a hell of a time to be billing and cooing—particularly when he had no way of knowing what sort of a jam Loki might be in.

"We've got to get out of here," he stated. "As soon as I can get a light to see what the set-up is...."

But Fulla sighed softly, reaching out a hand from which all the trembling had vanished. She took the matches he'd been striking futilely and thrust them back into one of his pockets. "There's no air for the flame sticks to burn on Jotunheim, Leif. We only seem to hear with our ears and to breathe because Bifrost adjusts us in passing over. And the fire the giants have is magic. But I don't mind the darkness or what the giants will do, as long as you're not angry with me any more. You do like me now, don't you, beloved?"

"I do, kid," he told her. In spite of the fifty thousand years she may have lived, she was still only the twenty year old girl she seemed, at heart.

She made a purring sound in her throat. "Even if you had ruined the tree and killed the Aesir, I'd still be yours. It wasn't my heart that hated you and hit you, Leif—it was all the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

traditions that die so hard. But after you went away with a frozen face, I knew the tradition didn't matter. Only then you were so cold and distant.... Leif, why did you come to rescue me? I'd caused you so much trouble already."

"Shh." He'd never had much use for story heroes who dropped their important work to rescue some clinging vine from the villain, but it seemed natural enough now. It was probably a tradition as deep in his race as the traditions of the gods and giants—traditions that could hold back Ragnarok for the right signs, even when the giants could have found Asgard asleep and undefended. Or maybe it was because he was responsible, and he'd had to develop a sense of stubborn responsibility in the long years of running the farm for Lee and himself.

"Shh," he repeated. "I'm not sorry."

It was the right answer, and she leaned against him, content. Or as nearly so as a woman can be. "I must look a mess, beloved. If we only had a light and a mirror...."

His sudden yell cut off the words, and he was fumbling in his pocket, cursing himself. Of all the darned fools, forgetting the dimensional mirror! Somewhere in a big city on earth, there'd be a searchlight he could locate. His mind directed the focusing, letting it draw gradually closer, while a growing beam of light began to lance from the mirror surface, strengthening as his focus came closer to the light. The massive walls of the cell sprang into view.

He swung the light over them, finding no trace of weakness anywhere. And the door was solid, locked on the other side with no hole to pick that lock. His heart sank for a moment, and then he grunted. It was supported on four bronze hinges, each fastened with three brass screws instead of the pegged construction he'd expected. The giants had more technology than he had thought.

"Hold the light on the door," he told Fulla, giving her the mirror. He drew out the automatic. There were things about the gun's army design that the giants hadn't suspected, such as the fact that it was specifically made to be its own toolkit. He began disassembling it rapidly.

FINALLY the rod that served as a screwdriver lay in his hand. It was apparently pitifully weak and slim, but the metal in it was sound, and brass screws turned easier than iron ones. He found bits of rock to prop up the door and take the weight off the hinges, then began working on the first screw. It was rough going, and his hands ached with the effort of forcing the screws, but they turned. In minutes, the last screw dropped into his hands, and Fulla cooed admiringly, reaching for the door.

He shook his head, massaging his fingers until he could reassemble the automatic. They'd have to reach the case to get the apples, and once there, a new clip would make the gun his best chance of getting free.

The door moved reluctantly as he heaved at a cross piece, and began to swing in. He took its weight on his shoulders, somehow easing it down to the floor. Maybe there was no air, and hence no sound—but if he'd thought he heard Hrymr's footsteps, then the giants might think they had heard any loud noise from a falling door.

Leif wiped the sweat from his forehead, and peered out into the corridor, but it seemed free, and he reached his hand back for Fulla. They crept forward cautiously, but the place seemed deserted. He began dashing down a long passage, just as a figure stepped

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

out of one of the side corridors.

Leif brought the automatic up without thinking, but a quick whisper reached him. "Hold it, Leif!"

"Loki!" Fulla moved forward to the god, making a few quick gestures, and nodded. "It is you, and not a deception. We thought you were caught."

"Too bad I wasn't, eh, Fulla?" Loki asked, grinning at her. Then he made a whistling gesture. "Well, what's this? You seem almost glad to see me. Leif, you'll have the wench tamed yet. No, they didn't catch me; I used the helmet to distract them when they had you, and slipped in here under illusion to save you. I can't hold the trick long here, though, so you found me in my own form. Come on."

He'd been moving forward as he whispered to them. Leif gripped his shoulder silently, and the god grinned again, accepting the gesture properly as thanks. He led them around a complicated course, quite different from the way Hrymr had come, but a few minutes later they were cautiously edging out behind the case holding the apples, sword and ammunition.

"Luck," Loki commented. "No giants. Open it."

Leif lifted the lid—and a sudden clangor began from a big hammer beating on a brass gong imbedded in the floor. The giants had a warning system, and already he could hear a yell from outside. The big creatures would be there in seconds—long before they could reach the door!

CHAPTER IX

LOKI HAD already snatched out the things from the case. He tossed the chest of apples to Fulla, handed her the sword with a low whistle, and gave Leif the clips. Leif began shoving one in at a run toward the door, while Fulla swung the great sword experimentally. It seemed to be light and almost paper thin, but amazingly tough, passing through one leg of the case without apparent resistance.

There was a louder clamor outside, and the giants began boiling in, answering the gong. They came shoving through the door, ranging from ten to thirty feet in height, forming a solid wall of swords and spears as they charged at a full run toward the three in the middle of the room. Leif brought up the automatic, but he knew it was a futile gesture against that amount of brawn.

Hrymr clapped two of his mouths together in surprise as the bullet hit his chest, but the spear in his hands rose to throwing position without a tremor, and started for Leif.

Something whipped past Leif's head from behind, just as Loki's hand caught him, dragging him down beside Fulla, flat on the floor. Then the room shook to an explosion, and Loki was bouncing to his feet again. Where Hrymr had stood, there was only a gory mess, and the giants were backing away, except for a few who were making no further plans due to sudden death.

"I've still got two grenades," Loki said grimly. "With enough luck, we may be able to get outside in the dark. After that.... Come on, we've got to find cover before they strike again."

He led them at a run across the floor, dragging the corpses of four of the giants into a crude barricade. Fulla blanched at the prospect of dropping into that mess, but she was down with them when the giants started forward again. They'd learned; this time, Skirnir was sending them in well scattered, to minimize the effect of the grenades. Spears came up, and the floor behind the three trembled as the heavy weapons landed. But the bodies had given

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

They took cover behind the upturned table as the giants battled furiously....

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

them protection enough, until some bright giant decided on a forty-five degree cast.

Leif was shooting, taking his time and aiming for their throats. The big torsos seemed unharmed by a .45 slug, and the head would be too well protected by bone. He reloaded, counting three more clips. Loki waited until several in advance came almost together, and threw the second grenade.

Skirnir yelled, but it caught several of them. This time, though, they made a forward rush as soon as the explosion ended, and Loki was barely able to get the final grenade thrown in time to halt the leaders.

They hesitated, and Loki nodded, "Next, they'll loose the rest of the spears, and then charge. Here, this one had a sword you can manage. Keep low—in a brawl, sometimes, being shorter is an advantage. Strike to cut their tendons, and then into their throats when they fall. Fulla, I'm calling Hoof-Tosser. If he can get through to us, grab him, and get to Asgard."

She gripped the amazingly versatile sword and shook her head. "I can kill giants with this."

"You scram!" Leif ordered harshly. He heard Loki let out a piercing whistle, keeping his eyes on the giants, who were already drawing back their spears.

Hoof-Tosser suddenly crashed through the door, high and coming fast, with his feet beating down at the giants' heads. For seconds, it disconcerted them, and the horse dropped. Leif made a sweep as his arms came around and threw Fulla into the saddle. The horse rose at a yell from Loki.

Then the spears fell, one grazing against Leif and catching in the cloth of his trousers. He yanked free, as the giants came boring in, and was over the barricade with Loki.

THEY WERE lucky enough to dart into the thick of the charge before the giants realized they were coming, and Leif began struggling to stay with Loki and avoid the giant legs at the same time. The god was right; since the giants had difficulty in separating enough to get a clean sweep at the pair. Leif chopped out with the sword, ducked as a giant started to fall, and managed to drag the point across the huge flabby abdomen, disemboweling the creature as it fell. Beside him, there was a snick of metal against bone as Loki's sword found a throat on another fallen giant.

But that gave the opening the giants needed. Leif felt a huge hand dart forward, leaped to avoid it, and found himself in another hand, with Loki also encircled. Their chance was finished before it really began.

Then the hand suddenly opened, and the giant began falling, his head jumping from his shoulders toward the floor. Leif's eyes darted up to see Fulla coming down again on Hoof-Tosser, the sword drawn back for another swing.

And a roar from the doorway seemed to shake the whole room and drag every giant around.

"Thor!" Loki yelled. "Get behind that barricade and lie close, before we get trampled."

Leif snatched a glimpse of Hoof-Tosser carrying Fulla toward the doorway, before he dropped beside Loki. Thor's fighting bellow came again, and there was a deep, hollow sound that could only be his hammer finding a giant skull. Almost on its heel, the sound of a grenade came, followed by another. There was a sudden thump of giant feet, and the first giant leaped over the bodies shielding Leif and Loki.

Leif's sword leaped up, and the giant landed with a stumble, to fall on his face, and start crawling away

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

on hands and knees, the tendon in his heel sliced through.

"Good man," Loki said approvingly, and his own sword licked out.

Then the flight ended, and Thor was over the bodies, dragging Leif and Loki to their feet and shoving a bag of grenades at them. The first of the giants had just reached the exit when Leif's toss crumpled him. A minute later, there were only parts of giants lying around.

Lee came running up. "Okay? God, son, you had us worried when we couldn't see you among those giants. Hey, Fulla, come on down and let's see one of those apples."

She was dropping already, and Leif accepted the fruit gladly. He could barely stand and hold the sword now, though it had seemed a part of him during the fight. But the first bite of the apple sent its usual heady strength through him, and he managed a fair grin.

He was surprised to see even Thor wiping sweat from his forehead, and accepting the next bite of the apple. "Without those grenades, things might have been different. They were more than ten times what we expect in a fort, by usual rules. Ho, you'll do, Leif Svensen. There's a place for you on my right side when the Sons of the Wolf come down at Ragnarok, if you want it."

Leif realized that Thor was handing out the highest honor he could, and apologizing for his comments that first time at the tree. Somehow, he felt like a peasant who had just been knighted by a king. This queer tradition of theirs began to get in the blood in time. But Thor cut off his thanks by lifting Fulla from Hoof-Tosser and into Leif's arms, then picking them both up and carrying them toward a tank of liquid at the side.

"And a maid worthy of a berserker," the big god rumbled, in his closest approach to humor. "But my goats won't like the stink of giants on you."

He doused them into the tank and out again, rumbling what was probably meant for a laugh, then seized Loki and treated him the same. They came out surprisingly clean, and almost instantly dry.

"How'd you reach us?" Leif asked.

Lee grinned. "We were already following Sudri's story when Vidarr came up with a big story about giants from Muspelheim. Everybody else went off there, but I persuaded Thor that there was a lot better reason to trust the dwarf."

THEY WENT out into the courtyard then, where Thor's two goats were waiting, each slightly larger than a Percheron stallion. Thor climbed to the front of the vehicle, looked back to see all were accounted for, and yelled. They were off at full speed, with Hoof-Tosser trotting along at their side. Loki and Lee stood beside Thor, looking forward, and Leif and Fulla were alone at the rear. But he was too tired to do more than hold her close quietly, and she seemed content to fit his mood. It was over an hour later when Thor's bellow rang out, and they began crossing through Bifrost, to pelt on over the sward toward the judgment tree.

Thor's yell sounded again, and the gods scattered to let Thor through. Leif grabbed the reins of Hoof-Tosser and vaulted into the saddle, unfinished business bringing new strength to his body. He stared through the crowd, noticing that Odin and several others were missing, but his eyes searched for Vali and Vidarr.

Then he spotted them, off at the side, between Odin's seat and a small pile of grenades Odin was keeping for his personal testing. Their faces were

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

incredulous, but hardening into sudden action as they turned toward the grenades. Leif reached for the gun, to find it had twisted in his pocket.

Thor shouted, and the hammer cut the air with a scream, lifting Vidarr from his feet and splashing him against the tree. But Vali had reached the grenades and scooped one up before Leif's gun was fully out or Thor's hammer could return.

Vali was confident now, his rat-face smirking. "Safe conduct, Thor, or the lovely Fulla *and* the apples will be supping with Baldar! You've won now, but...."

The gun in Leif's hand spoke sharply, and Vali's face blanched as the grenade fell from his pierced wrist. Thor's hammer came up, but Leif was remembering Andvari as well as the threat to Fulla. "Mine, Thor!"

Thor nodded. "Yours, Leif Svensen."

Hoof-Tosser was already in the air, overtaking the running Vali. Leif brought the horse down, kicked as carefully as he could at the treacherous god's head, and was off, gathering the thin figure up and lifting it in front of him on the saddle. Fortunately, the blow had only stunned Vali, briefly. His eyes were opening as Hoof-Tosser began lifting up and into Bifrost at Leif's shout.

Then all hell was tearing at Leif's mind, and even the horse was whickering unhappily. Vali screamed, and began to struggle, to cease in a paralysis of fright and horror as the ripples of color began to die down. Leif closed his eyes, but the hell still poured over him. He held back his vocal cords, savagely fighting to keep from ordering Hoof-Tosser back, and summoned the last desperate effort of his will. There was apparently little gravity there as he lifted Vali over his head and tossed the god forward. Then he found he couldn't order Hoof-Tosser back; but the horse had had enough, and suddenly reversed of his own will.

Niflheim's cold fingers released reluctantly, but Leif's eyes were frozen shut, and his mind teetered and gibbered at him, even when the voices of the gods were around him again. He felt hands reaching for him, and then passed out.

Fulla was cradling him, and there was the taste of apple in his mouth when his mind began creeping back. His brain had mercifully refused to remember anything clearly; somewhere, there would always be a section of scarred memory from the few minutes, but its very horror had burned all connections to his consciousness. He grinned feebly at Fulla and looked up to see Odin on the seat, finishing some remark to Frigg. The eyes of Odin's wife were frozen lightning as they stayed fixed on Leif.

The Alfadur looked older and more beaten than usual, but he was holding the hell of the treachery of two sons to himself, and Leif was surprised to see no anger in the god's eye. Odin watched Leif rise, and nodded wearily. "I have removed the burn of Niflheim, Son of Sven, in small gratitude for saving me the need of dealing such justice on one I had thought my son. Henceforth, by virtue of all that has happened on this day, be known as Leif Odinsson!"

There were incredulous sounds from the other gods, and Frigg screamed, her hands contracting to claws as she turned on Odin. Leif shook his head and looked to Loki for information.

LOKI'S expression was both puzzled and more sardonic than usual. "Yeah, that makes you an official god, Leif, adopted by Odin himself. But don't get any ideas—Odin probably did it to spite Frigg as best he could for siding with Vidarr and Vali. And

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

there are catches to it—it doesn't mean you are any freer; you're bound now to win Ragnarok more than ever—or you'll join Vali as a traitor. And it takes several thousand years before you begin to develop any powers you don't already have, so you're still a god in name only!"

Put that way, it was easier to believe. Leif liked Thor's accolade better than this empty honor. But Odin had quieted Frigg and was speaking again.

"And lest Loki make you think this a mockery, though it is the only honor we have to give, all former oaths apply. Should we win Ragnarok, the boon of which I swore here is still yours to ask."

He shook his head slowly, stepping down from his seat and approaching Leif. The arm the god laid on Leif's shoulder was a tired one, and Leif felt a stirring of sympathy that deepened as Odin went on in a low voice. "But to the son who replaces two unnatural ones, I admit victory seems most unlikely. The giants now know of our newer powers, and the Gaping Wolf already seems to course beside the dog Garm, while my eyes saw the hordes of Surtr assembling in Muspelheim. We have won back a weapon worth ten thousand einherjar, since the sword you found in the case is the great weapon of Freyr. But without Vidarr, who shall kill the Wolf when I have been swallowed? Thor! Leif! I grow weary. Lend me your strength as I go to Mimir's well to read what shall come of the future now."

Leif shook his head slowly, conscious of the never-ending surprises of this paradoxical world. He looked at the icy, venomous face of Frigg, and back to the god who'd given an eye to learn only that he must rule with the certainty of eventual defeat—and to whom being swallowed was a lesser evil of the dire things to come. Suddenly, Leif had enough of it.

"Father Odin," he asked, "as Leif Odinsson, do I have a voice in council?"

Odin nodded gravely. "Even as Thor."

Leif's eyes swept over the crowd. Heimdallr was busy polishing a part of his golden armor; Freyr was fingering his newly restored sword with open delight; Fulla's face was beaming, and Lee had his hands clasped together over his head in a vote of triumph; even Thor was looking on with a brotherly acceptance. Then Leif turned to Frigg again, and all the life went out of the company, leaving the hopelessness of all of them open and obvious.

"Then I demand to be heard," Leif stated.

Odin shrugged and stepped back to his seat. "Speak, Leif."

LEIF FELT like a fool at the attention focussed on him; well, he'd never enjoyed making speeches, though he'd made enough at farmer's meetings. Loki could have made a better one, but he could at least tell them what he thought.

"My ancestors had a lousy religion once," he began abruptly. "It was the gloomiest, most futile one created. For every major god, they had something evil to kill him; and the better the god, the worse his fate. To make it neater, they had those gods knowing what was to happen. But that was all right—those ancestors were only rude barbarians. They could have a serpent to kill Thor, Surtr to kill Freyr, Garm to kill Tyr, the Wolf to kill Thor, and a general burning of the universe by Surtr after evil had won.

"But then I get brought here to find that they got those notions from you—after you'd had thousands of years to learn better! You're still swallowing

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the hog-wash today—even when you've already seen half of the predictions turn out to be a pack of has-been lies. You still think the norns—who couldn't even predict the sleep—are infallible. They were right about so-and-so, weren't they? The idea that you made it come true by believing every word they put out never entered your heads.

"Or take Frigg. Once, in trying to showoff how well she could protect her mama's-boy, Baldar, she got him killed. So now she sits there crying over it, hating everyone, and doing everything she can to ruin you. But she gets away with it because she told you she knows all the future—though she can't tell it to you. That's the line little kids tell when they haven't studied their lessons: 'I know but I won't tell!' She couldn't even tell you how Thor will avoid death from the Serpent's venom!"

Odin was staring at his wife with a speculative look in his eyes, and there was iron firmness in his voice. "Speak, Frigg!"

She snarled at Leif. "No one can tell that, since Thor dies by the venom. Tradition and my foreknowledge say it!"

"And both are liars," Leif told her flatly. "The dwarves have made me plastic sheets that even hydrofluoric acid can't touch. In an inner suit of that, Thor can swim in the venom, and laugh at you—as he will live through it. And what of all that bunk about Vali and Vidarr living beyond the Ragnarok to found a new world? Am I greater than your whole world, that I can upset your fixed future?

"When I was brought here, I may have been a coward, as I was accused. But I wouldn't have sat around a witches' cauldron with a bunch of old women being scared sick by fairy tales. I'm one of you now, and it's my future, by your own choice. So—do you really want to win this war? Because you can."

Odin had been saying something to Frigg, and the god waited until she stepped down with blanched face and unbelieving eyes and began moving off woodenly. Then he turned back to Leif. "How, Leif?"

"Forget your traditions, stop waiting for the giants to bring the war to you. Use the courage all of you have, individually, and take up the weapons I have against the giants, before they can organize. Wipe out their leaders while *their* traditions keep them helpless!"

Thor's bellow seconded it, with Loki and Freyr joining. Odin nodded slowly. "I say good, Leif, but this is something on which all the Aesir must decide. Those who would join in that, stand to my right. Those who would await the Gjallar-Horn, choose my left."

Leif stared incredulously. Beside him, to the right of the throne stepped Loki, Thor, Freyr, Fulla, Odin, and Ullr. Even Heimdallr stuck to tradition and moved to the left.

They were to wait like sitting ducks for the giants' timing.

CHAPTER X

LEIF SHRUGGED, letting the spirit that had prompted his appeal die out, and went up to Odin's seat. "All right, then, I suppose Thor and I might as well help you to Mimir's well. It's as good as anything."

Odin smiled faintly, and shook his head, motioning Leif back. "Leif, my son, traditions are things beyond reason. For the logic you have used and the thoughts it has given me, I like you—as I've liked Loki in spite of all the traditions against him. Well, the others have won, but let Mimir's well be. I have enough for thought already. The giants are warned now, and will

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

strike too soon. Fulla needs you more than I—go to her and the work that is needed."

He turned and moved away, leaving Leif blinking, while Loki chuckled in the background. Fulla was moving slowly toward the buildings, her eyes on the ground, as Leif caught up with her, and she refused to meet his eyes.

"Well?" he asked at last.

"The Alfadur had no business.... Perhaps I said things while you were burned from Niflheim, but.... Maybe I even said I needed you."

She shook him off as he caught at her. "But Leif, I know your heart isn't with Asgard. I know you mean to use Odin's boon to return to your earth. And since you have eaten of the apples for only a short time, you can return, though it may be hard at first. I thought there was still a little time until then, and that we....I should have known your words were only to soothe me while the giants had us."

He caught her to him then. "The words were what I felt in my heart, you precious little fool," he told her gravely. "And if I can go back to earth, I'll want you to go with me—if you can give up all this to be just a farmer's wife. You'd have to pretend to be just a woman—no goddess."

"It wouldn't be pretense—I'd be no more there than any woman. Only Odin, his true sons, or Loki can retain any of their powers on earth."

"Oh." His hands began to drop from her shoulders.

She pressed them back. "Do you think that matters to me? I'd go with you if I turned to a giantess! But it would never do. I've eaten the apples too long, and without them, I'd grow old on earth and die as a hideous hag—when you were still in your prime."

"We could take a few apples and put them in the deep-freezer...."

"A few apples last all Asgard a thousand of your years, Leif—because there are only a few, ever. But on earth, all of them would be less than enough for one of us for a single decade! *If* we could have even one...."

She threw off the mood and drew his head down to her. "But we still have a few weeks before Ragnarok, Leif—if you want."

He looked down at her, comparing her to the girls he'd known, and even the dreams he'd had when he was very young and naive. He could see the smirks from Gefjun and other goddesses, and knew he should refuse, for her good. Then he smiled at her. "A few weeks can be a long time, honey."

But long after night had fallen, he lay staring into the blackness of his room. They were short weeks, before the giants struck, and the gods were hopelessly outnumbered, the einherjar almost useless. The giants would have all the advantage of choosing the time, and the Aesir would be defeated by their sense of inevitable defeat.

If the miracle of victory for the gods occurred, Leif had practically an eternity of life in a tradition hounded world where there was nothing to do but turn earth into a vassal peasant state, subject to the whims of the gods. If they lost, Leif wouldn't know it, but the giants would wrack and raze earth with fire and destruction.

It was just a question of time before one of the two alternatives was thrown at him. He wondered idly how much time, and dismissed it, to sleep and dream of Fulla growing old and wrinkled, cackling at him out of toothless gums.

But a month later, Fulla's face was still the same and her teeth seemed highly capable as she sat chewing a mouthful of pancakes and bacon. And Leif was still wondering when the giants would strike.

SOMETHING that sounded like all the klaxons invented answered his

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

question, wailing and keening through the air. Fulla paled, horror running into her eyes. "Heimdallr blows the Gjallar-Horn! The giants are at Vigridr!"

Leif poked the last of his breakfast into his mouth, considering the fact that Ragnarok had begun. Now, as Leif Svensen, he could go to the shops and await the returns. But as Leif Odinsson, his place was to the fore. He got up and began buckling on his armor, with Fulla's help. Finished, he blinked as she came out with a suit of mail, motioning him to help her.

She met his eyes firmly. "I'm fighting. Do you think I care what happens if you don't come back to me, Leif?"

He knew he should protest; but he felt no desire to. If she wanted to be in the battle, that was right for her. He helped her quietly, and went out through the workshop entrance, where the worried dwarves tried to yell encouragement after them. The work there was done, as best it could be. Leif moved toward the stables, seeing no other god near them, trying to realize that this was it. But the fear he expected refused to come. He was only conscious of a vague relief that the waiting was over.

Lee caught up to him, swung him around to stare at him, and grinned. "You got it, son. I always knew you'd make a better hero than I, and by Ymir, I was right. You'll be around after this is over—you can't kill a man with that stuff in him."

"I'm not scared, if that's what you mean, Lee. But I'm not looking forward to it for the thrill, or laughing about it."

"No—no, of course not." Lee frowned in thought. "You don't have to. You can go in cold and dead serious, like Thor and Tyr. Look, my godly twin, d'you know what would happen if Loki or I quit pretending it was all just a joke or a thrill? We'd funk out. We don't dare take it seriously. Damn it, if I don't get off the soap box, I will funk it! See you at the wake tomorrow!"

He chucked Fulla under the chin and was gone at a run toward Thor's group on einherjar, his voice taking on parade drill tones before he reached them.

Leif found the valkyries busy saddling, and cut through their chatter. "I'm guessing that nobody gave you orders. What are your plans?"

Reginleif looked doubtful, still not used to his godhood. "To the battle, as always—to rescue the. . . ."

She fumbled, and Leif grinned wryly.

"Tradition, isn't it? To rescue the new heroes! Not this time, not by a damn sight. All right, get on the horses and go over to the shop of the dwarves. Sudri has his boys ready, and they'll load you up with grenades and tell you where to haul and dump them. You don't like taking orders from dwarves—but you'll do it, or I'll give your horses to the dwarves. Fulla, you get along well with Hoof-Tosser, and Gna doesn't know enough about the whole business. Take him and a few of these girls. They can lug the small U-235 bombs up to Bifrost, where you can carry them over to the trails in Muspelheim and Jotunheim. You know what to do?"

She repeated the plans she had heard. Under the stupid tradition, he hadn't been able to take precautions in advance, but he could cut off most of the reinforcements from getting out of the giant worlds by dropping the atom bombs on them where they were massed outside the entrances to Vigridr. The stone dwarves had modified the time element on the detonators to give the bomb carrier enough time to escape.

Leif nodded approval as she covered it. "Good! Hoof-Tosser is the only

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

horse that can get off the ground, except over earth, and probably the only one strong enough to carry a bomb across even those easy borders. Take care of yourself, kid, and don't get too low."

She matched his mood by avoiding all emotion. He left as she began to give the valkyries orders. He located Loki and Thor and drew up to them, noticing that the black-bearded god was wearing his plastic underarmor properly. "How bad is it?"

LOKI GESTURED toward Leif's mirror, and they all moved toward the wall, where they could watch Asgard and examine Vigridr through the mirror. Sometimes Leif almost forgot that the little battle-world lay across Bifrost, in another dimensional twist, since it lay so close, and passage through Bifrost to it was so easy that the pigs had to be chased back regularly from it.

Odin and Freyr had already assembled their troops at the end of the battlefield nearest Asgard, and Tyr was coming through with his. Vigridr field was better than two hundred miles on a side, taking up most of the largest land mass on the world. Lee came moving through then with the left wing of Thor's band—the strongest and smartest of the heroes, on the whole. As Leif watched, he saw the valkyries begin to move down, dragging wooden sleds of grenades behind them, in addition to those belted to the heroes.

But there was a mist over the field, and at first Leif could make out nothing of the giants. Then it began to clear, and he groaned at what he could see. The forces of the Aesir seemed lost in a tiny corner of the field, compared to the seemingly endless expanse of giant forces. And only the picked monsters were there—none less than thirty feet in height, and one whole company running to nearly twice that. They were armed with everything from swords through pikes to maces—and the last looked the most dangerous. But he could see no sign of bows and arrows, or of the cement-tamper gadget he'd dreamed up as the best answer to killing off the Aesir forces, if he'd been on their side. It had seemed so obvious that he'd half expected it, though he knew that what was obvious was actually so only against a millennium of a particular cultural development.

"It isn't quite that bad," Loki said. "Vigridr has a gravity only about a quarter normal, and we're more agile. But as you may have noticed, Jotunheim has even less, and the frost giants feel too heavy for comfort, while the fire giants are used to nearly three times our gravity. They feel themselves so light that they have to remember not to use their full strength, and it slows them up."

They'd need the advantage, and then some, Leif decided. "How'd so many get there, anyhow?"

Heimdallr came up and caught the question, buckling on the plainest, dirtiest, dullest and heaviest armor Leif had yet seen, and swinging a sword that seemed designed for two men. There was a curious drive to his voice, totally unlike his usual affected drawl. "My fault, brother. While I watched the main trails for the march to begin, these were coming in on small trails, a few at a time, hiding in the grasses, and waiting for this day. You were right—we should have struck them first. Well, good luck among them."

Leif felt the three clips left in his pouch, made sure all his grenades were in place, and loosened the buckle of his new sword. He had Sudri alloy and forge it from the toughest formula he could find on earth. It

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

was thin and light, but its cutting edge could sheer through normal steel as if it were paper. He'd imitated Freyr's sword as best he could, and tried to sell the idea to the others. But they preferred the familiar, just as they distrusted the thin, tough solid armor he'd had forged. They were used to chain mail, and he couldn't convince them that this spread the shock better. But a lot of them were carrying the little polished shields that could be carried horizontally, to signal reflections of any sudden movement above the wearer, giving almost full-circle vision against the giants.

He started to climb into Thor's chariot, to stop at an exclamation from Loki. "Naglfar!"

Something was coming through from Jotunheim that looked like an immense ship, but which must be a huge mobile fort—complete with ballistas, which he'd never expected. It rolled on immense wheels, powered by the barely visible feet of some incredibly large monster. Then Bifrost seemed to buckle and develop diffraction patterns, while a blinding light ran along Naglfar, seeming to crumple the fort like a paper toy.

"Hrymr was supposed to steer it," Loki said. That probably caused the delay while they trained a new driver. But what ruined it?"

"U-235," Leif answered, and waved up as Fulla went overhead on Hoof-Tosser. The bomb had come in handy; that thing had seemed ugly enough to wipe out the gods by itself.

THEN THOR made ready, and Leif waved at Loki, who would be the messenger, since his skill at sleight could serve as enough disguise to make him pass unnoticed during the rage of battle. Thor yelled at the goats and they went slipping through the faint ripple of Bifrost, while the einherjar followed. Leif looked at them and grimaced. They were going into something that was beyond their imagining, but most of them didn't have enough of the life-force to realize this was more than a routine day. And the ones which were almost without life-force in their elf-shaped flesh had been left behind for reserves.

"I've had no training at this, Thor," Leif commented. "I won't be much help to you."

"Training—it takes something else! I'm glad to have you with me, Leif, and if the Serpent gets me, it will be good to know you're there to lead my band. Ho! They're moving."

Odin's band had started, and the distant figure of Odin could be seen in his gold helmet, holding what seemed to be his spear. Leif grinned, glad of the last-minute inspiration that had made him change the spear to a bazooka and furnish Odin with a load of trick shells for it. It had taxed the abilities of the dwarves, but they had succeeded.

Out of the giant group, a band moved forward, headed by something out of a nightmare. "Fenris Wolf, the Gaping Wolf," Thor said, but Leif had already guessed it. It looked something like a wolf, though it rose to a height of forty feet at the shoulders, and had teeth five feet long, dripping a raw, green fire of radioactivity. Leif shuddered, looking for the other monsters. He saw a great creature, looped into coils, projecting a head larger than a twenty-foot boat, but it wasn't a true serpent, since it sprouted hundreds of short, stubby legs and bore a dozen arms, all loaded with weapons. The third was harder to see—something that seemed to flame and blaze, in outlines that the eyes refused to admit. That must be the dog Garm.

He shuddered again. Somewhere in his mind, a dim memory of things like that in Niflheim tried to clarify

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

itself. Thor nodded. "The fire giants, being more terrible than the frost giants, dragged three creatures from Niflheim long and long ago—so long that they believe Fenris Wolf is the father of them all. They are dreadful opponents."

They were more than that, and Leif's admiration for Tyr increased as he watched the god drive his forces against the thing called Garm. Then Thor yelled, and his own band was moving toward the Serpent. Thor handed the reins to Leif, checked his hammer, gloves and belt, and dropped over the side, running forward. The band behind the Serpent came forward with a rush.

Leif's eyes dropped to the long blades projecting from the axles of the chariot, and he hoped the accounts he'd read of the Egyptian use of them were true. It had been another last-minute idea. He whooped at the goats and let them go all out, fairly sure that their armor, built like his own, could take the first encounter.

At the last moment, he swerved, dug deeper into the protective front of the chariot, and shaved down the side of the giant ranks. There was a series of grinding jolts to the chariot motion now, and a howling above that threatened to break his eardrums. He came to the end of the rank of giants, stealing a quick look back. It seemed impossible that so many giants could have been robbed of their legs in that one brief passage. The blades at the sides really worked, and the old Egyptians had been smart boys.

The giants were swinging toward him now, though, and he cut around their rear, barely shaving through as they tried to close up. This time, while they were swinging to face him, he cut up the other flank, catching their legs from the rear before they could face him. He came erect and began tossing grenades into their ranks. He shook his head at himself, wondering how he could take it with the same attitude as butchering time on the farm.

The giants lacked discipline—but it was nothing compared to the einherjar. Some of those were standing off at the side, happily swinging away at each other, as if they were back practicing in Asgard! Leif let out a yelp and was in among them, trying to bring some order out of their behavior. He indicated the grenades, and they began picking them up and throwing them toward the giants. Half didn't explode, for want of will, but those that worked helped considerably. Leif swung back.

And a grenade from his own einherjar hit the back of the chariot, knocking one wheel to splinters!

CHAPTER XI

LEIF HAD begun jumping at the sound of the explosion, and he landed with a jolt that tested his body and found it unharmed. He dived to the goats, swearing again at the dumb heroes, and began unhitching the animals. At a swat from the side of his hand, they went loping off toward Asgard and the stables.

Fulla yelled from high overhead, and Leif waved up to show he was doing all right. She dropped a rain of grenades into the ranks of the giants nearest him, and went wheeling back for more. At that rate, she'd be their best warrior, and safe enough in the bargain. Leif struck off at a lope that covered some twenty miles an hour at the reduced gravity, refilling his belt with grenades that had not exploded, and avoiding the thickest clumping of the giants. But it was necessary to stick somewhere near the einherjar, and try to keep them from straying, and he found himself bottled suddenly, with one of the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

heroes. Leif's grenades ran out, and there was still no opening in the giant ranks. He motioned the hero and went leaping in, ducking in where their grouped legs kept them from getting a good swing at him, and where even poking with a spear was hard. Beside him, the hero was happily taking care of those that Leif managed to drop, with a cooperation unusual for one of the einherjar. Then Leif came onto an unexpected group of grenades, and began throwing them as the giants broke away. One giant threw a grenade at Leif, but the detonators were not attuned to giant minds. He caught it and fired it back —to remove the last of the near giants.

The hero grunted amicably. "We fight now, huh?"

Leif strangled over the words, but managed to keep his voice calm as he sent the hero after some giants in the distance. Still, if they were all like that one, it wouldn't be too bad. He counted over a score of dead giants and loped down the field, wondering if there was anything in Lee's theory that a man who was both cold and unafraid couldn't be killed in battle. It should make a good combination for survival. He leaped ten feet into the air over giant dead, and started back toward his einherjar.

"Ho, Leif!" It was Thor, apparently wading through giants, his hammer a steady tattoo that left a string of broken giant heads, while he was swinging a big battle-ax with his other hand. Leif saw the giants closing around him like cornered rats making a last desperate bid, and went in from the outside, scattering them again, to give Thor room for his hammer work. Actually, it wasn't too much different —except in reverse—from his experience in digging rats from a granary foundation. Try as he would, he hadn't been able to hit one of them, though Lobo had been killing them right and left. They had been much too small for Leif, just as he was for the giants.

"Garm got Tyr," Thor announced sadly, swinging the axe over Leif's head to chop off part of a giant, and reaching out for the returning hammer. As he did so, he spotted one leg temptingly near, and swivelled on his hip, locking a leg into the giant's, and tripping the grotesque monster where Leif could take care of him. "Though Garm died after, from the damage Tyr's one arm had done. And you've proved better than Frigg or the norns, since I've killed the Midgard Serpent and Odin has a tooth of Fenris Wolf as a trophy. Where is Lee?"

LEIF SHOOK his head, and backed against Thor as three of the giants came charging at them. He barely caught the spear on the slant of the shield, deflecting it without trying to stop it. Even then, it sent a surge of pain up his arm. He had noticed that it was getting harder to dodge and save himself, as the giants grew accustomed to Virgridr and the style of the gods. And he was having to watch himself, to make sure that his success didn't make him careless; Thor did it by pure conditioned reflex, but he couldn't risk that.

From the edge of the field, there was a piercing hail, and a group of the valkyries and goddesses came swarming out, armed heavily with grenades, and intent on finding giants for targets. For a time, they turned the tide back to a condition of giant killing, rather than war, and the giants began to retreat. Some of the better einherjar worked more smoothly with the women, and there were knots that operated at almost full efficiency. The normal einherjar re-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

mained more of a menace than a help, however; the fighters were always in danger of getting a bomb in the back from one of their own supposed allies.

Thor found a lull in the action and began pulling out hunks of the plastic underarmor, shaking sweat from his body with it. Leif tried to help him, so they could get back into the fight sooner, and most of it came out through openings in the armor. They were pulling the last away when Loki seemed to materialize out of nothing before them, trying to keep up with their questions; there was no good way of estimating the battle from the field.

"Lee's collected five heroes who seem to have some gumption, and he's got Gefjun and a couple other Asynjur freighting grenades. He's doing more damage to the giants than any group. And we're doing miracles, thanks to the grenades and the bombs that killed off the giant reserves. But we're losing, badly. They hold most of the field, except around the entrance to Asgard, and they're closing in there. Even if every hero kills twenty of them, they can still beat us. The dwarves are hauling in the grenades, now. And Sudri and a bunch of volunteers are right in the fight."

He pointed to a section where a few dwarves were busy hurling grenades. A giant suddenly caught one dwarf. Leif saw it was Sudri, and groaned, but a second later, the dwarf dropped back, spitting, while the giant's hand dropped beside him. He darted forward and grabbed a leg of the giant, his mouth working, before an eddy of battle cut off the sight.

Leif stared after the dwarf, and then jerked back as a flicker on his shield caught the corner of his eye. He leaped fifteen feet sideways, just as a great mace thwacked down into the dirt, the sharp spike clanging off his armor and opening six inches of skin along his leg. Half a dozen giants had sneaked up while they were conferring with Loki.

Leif went into action that was now automatic, while Thor's hammer and axe began a thudding dirge. A grenade from a hero went off in the midsection of one giant. Leif groaned and swore, picking himself up from the ground, but he was only bruised, and in a few moments Loki was cutting the ugly throat of the last giant.

But the battle was obviously being lost; the giants had been cautious of the heroes at first, but now were largely disregarding them and working on their real enemies. "How much longer can we hold out?" Leif asked Loki.

"Maybe two hours, but certainly no more."

"And where's Odin? Thanks. Good fighting."

He finally found Sudri, slipping back for more grenades, and the dwarf paused in delight at finding Leif whole. But Leif had no time to waste. "Can you build rails out over Vigridr —higher the better—from Asgard through Bifrost—and store a score of bombs over the field?"

"Sure, boss Leif. Stuff won't weigh much here, and that part of Bifrost is thin. Brace the platforms from Asgard. You want it done?"

"On the double, Sudri," Leif ordered, and headed for the section where Odin was supposed to be, avoiding giants as best he could. It was still odd to be able to run a mile in less than two minutes, but handy. He found Odin in a little time, mixed into the thick of things, with a couple of the valkyries, a hero, and a dwarf helping—the screwiest mixture Leif had seen, but a surprisingly effective

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

one. The giants were well thinned out by the time Leif reached the group and began helping to clean up the tag ends.

ODIN LOOKED good now, more vigorous and youthful than Leif had seen him before, but the worry in his eyes showed that Loki had been in touch with him. Leif wasted no time on preliminaries. "Can you order a complete retreat, and have it work?"

He accepted the god's doubtful nod, and braced himself for what he hated about the plan. The reserve einherjar were certainly no use to even themselves—actually less a l i v e than mythical zombies. But because the elf-shapings had once housed the complex life pattern of real men—whether it was a soul, or as synthetic as the bodies he couldn't know—it bothered him to demand their cold-blooded sacrifice. And Odin was somehow fond of all his heroes.

The idea of sending those reserves in to their sure death didn't sit well with the Valfather's conscience. But he nodded at last, recognizing the harsh laws of military necessity. "As you say, Leif, there are many who are less than beasts, knowing neither pleasure nor pain. If those will suffice, you have my permission. And here, we shall try to organize for the quick retreat you need. Now go back where you're needed. I can do what is needful here."

Leif headed for Bifrost, still trying to avoid further fighting now. He ducked around a huge corpse, leaped over a pile of squashed einherjar, where a giant foot had trapped them, and dived rapidly under the falling sword of a smaller giant. Then he was clear and searching frantically for Fulla. She caught his wave, and Hoof-Tosser plummeted down, to touch the earth lightly, and dart up again as Leif flopped wearily behind Fulla.

Her hand squeezed hard on his wrist, but she made no comment, and he was too exhausted to waste words. He found a scrap of the bit of apple all had been given and swallowed it, as they flashed through Bifrost. It helped enough to let him jump from the horse and move briskly to the workshops.

The dwarves were almost finished with the crude rails that ran from the shops to the top of the wall and headed out through Bifrost. He followed it out, to a platform at the edge of Vigridr, perhaps two hundred feet high and two hundred square feet in area. The bracing back to the wall on Asgard had already been installed, and the first sled with its load was dragged up the greased rails as Leif watched. He made a few minor suggestions, and moved back to Asgard.

It was amazing how time was slipping away. Loki was waiting for him, with Heimdallr at his side, as Leif stepped from the wall. The vain god was now blood-spattered and filthy, almost unrecognizable, but the horn in his hand still sparkled like a precious jewel. "I'm to sound retreat when you're ready," he announced. "But who's to lead the sacrificed einherjar?"

Leif frowned, shaking the cobwebs from his brain. Of course there would have to be a leader, since the heroes couldn't even remember orders more than a minute or so, unless they could simply ape the acts of a god in front of them. They needed only brains enough to keep the giants from realizing it was retreat, and not replacement, for five minutes, but that was beyond their ability. He'd overlooked that need.

But now he faced it. "All right; it was my idea."

"Don't be a fool," Loki snapped.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"It means death."

"It means the same death to anyone," Leif pointed out. "And I can't ask someone else to die for my plans."

Fulla made a low moaning sound in her throat and slumped to the ground. He smiled at her grimly. The month had been longer than they'd expected, and once Ragnarok was over, he could only be a source of trouble to her.

HE MOTIONED Heimdallr to sound retreat, and the horn came up, wailing as if ten thousand banshees were attending the wake of the last idshee in the world. Heimdallr dropped the horn with a scowl, and stretched out his hand. Leif started to meet the gesture, only to feel the god's arm push suddenly against his chest. Something caught behind his knees, and he went sailing over the kneeling form of Loki, victim of a trick older than even their traditions.

He was on his feet almost instantly, but Heimdallr was running toward the apathetic ranks of the oldest heroes, waving them forward. They started mechanically into Bifrost, with Heimdallr at the front.

"You never know about him," Loki muttered slowly. "But in a way, he was right. You did your job here, and more. He'd made a mistake in not catching those early giants drifting in. Now he has to undo it."

Fulla was with them as Leif and Loki stepped along the rails into Vigridr again, watching the retreat. Odin had somehow managed to marshal his forces into a thin strip before the entrance, and even to force the giants back temporarily. Now Heimdallr broke through Bifrost, his horn wailing, and went boring in, mingling his ranks with the others. Leif could see that he was the man for the job, now. He did it with a flair that somehow made every faded hero a temporary extension of himself, and he got them through undivided and into motion against the giants. Odin waved, and gods, valkyries, dwarves, and heroes with enough intelligence to obey pelted for Bifrost. The giants hesitated, uncertain about the strange maneuvers, and even gave ground a little before Heimdallr's force. Then they began a forward movement again, but still cautiously.

Leif felt something touch his arm, and turned to see Hoof-Tosser delicately stepping along the rails, rubbing his muzzle against Leif. Apparently, he'd gotten tired of being alone. Leif grabbed the horse and pulled him forward onto the platform, noting that there were still a few grenades on the saddle. Then Leif was mounted and urging Hoof-Tosser into the air.

At first, he could see no sign of Heimdallr, until a toppling giant showed the god briefly. Leif urged Hoof-Tosser down, his sword swinging for a giant neck, and continuing on to another. He saw others running up, tossed the grenades, and brought the sword down again. For a second, there was a clear space. Heimdallr was not fool enough to argue; the god leaped up, lifting his arm, and Leif caught it, yelling for Hoof-Tosser to get back to Asgard.

The weight of the god and armor was too much for Leif to heave up to the saddle, but Heimdallr caught a stirrup with his other hand and gradually floundered up behind Leif. Below, the last of the forces of Asgard were retreating through Bifrost, while the giants were pelting across the field, disregarding the hopeless einherjar.

Leif yelled to the dwarves as Hoof-Tosser leaped through Bifrost and dropped down beside Loki and Fulla.

The dwarves were darting back as Leif and Heimdallr dismounted; the god nodded casually, and reached for the mirror. Leif knocked it from his hands, just as a stabbing beam of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

radiance lanced from it, and Bifrost became visible for miles of its length, arcing and leaping in rainbow fire. But it held back the shock and lethal radiation. Twenty of their strongest U-235 bombs going off together weren't very gentle. Leif reached for the mirror, and they could see no evidence of life on the little world, clothed in decaying radiance. The giants were no longer a danger.

ODIN AND Thor found them some time later, still unsure of this victory that had replaced certain doom. Leif was dead inside with reaction from the flux of emotions he'd never known he was experiencing, and he could sense Odin's mood. The god stood looking down at Asgard without seeing it.

"Five gods, four goddesses, eight of my valkyries, four-fifths of the einherjar, nine dwarves—let Sudri have a seat on the council for his work....but we won. Gna is dead, and Hoof-Tosser is yours, Leif. Frigg has killed herself, since the prophecy failed. Tyr and Ullr. But I have still my three strongest sons—Heimdallr, Thor, Leif. My heart is full. Leif, Lee follows us; he got safely from Vigridr. Now I must reckon accounts at Yggdrasil."

The gods, except Loki, drew away, just as Lee reached Leif, too tired to do more than nod. Heimdallr looked back at the rails for the bombs. "A good trick," he commented. "A better trick than Leif's others. With it, we can build through to Midgard; we can regain it easily—and hold it!"

Leif sat frozen as the gods moved out of range, realizing slowly that Midgard was earth! Finally he turned to Lee. "Are you coming back to earth with me, Lee?"

Fulla gasped, drawing a slow shuddering breath. But Lee nodded, grinning suddenly. "It's going to be pretty fossilized around here with no war, Leif. And Gefjun is getting the darnedest ideas."

Fulla stood up slowly, and the smile on her lips seemed almost real. "You have to go, Leif."

He climbed to his own feet again, sighing. "It will be hell without you, but I can't betray a world—even for you."

"Then I'll run ahead and not interfere. You'll have business with Lee and Loki." She raised on tiptoe and kissed him softly, making no attempt to linger or stir his emotions. "It was a perfect month, beloved."

Then she moved down to the path, neither too fast nor too slow, her body set to a masterpiece of music. Leif watched her go, trying to photograph the strength and fineness of her on his mind. At last he turned back to the others.

Lee looked uncomfortable, but the sardonic smile was etched deeper on Loki's mouth, though his voice seemed husky. "How are you going to protect earth, Leif? Going back won't do it."

"No." He hesitated, then shrugged. "I have a boon from Odin—and I'm claiming it against all Asgard, for today. I want the right to take all the apples back to earth! Let them sleep a thousand years—it's better than being dead forever—and by then Bifrost may be completely closed from earth here. But it will stop them."

"Unless they stop you. Well, I'll put it up to them, Leif. Maybe I can get it for you—unless they decide to drop all of us into Niflheim for the idea. Be seeing you."

He started after the others, the grin stronger on his face, and Leif turned to the shops of the dwarves. He still had some instructions for Sudri.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CHAPTER XII

DUSK WAS settling on Asgard when two figures approached the shops. Lee was pacing about, but Leif sat quietly smoking, while Sudri stood watching with mournful face. The figures drew nearer, and turned into Thor and Odin, but Leif made no effort to rise.

Odin came up first, looking down at the man, and his shoulders were tired. Gravely, he dropped a chest to the ground at Leif's feet. "The apples are all there, Leif, my son, Loki has preached from Jotunheim to vanished Vanaheim and back, to no avail. But no man or god may say that the word of Odin is an empty thing. The Aesir pay their debts."

"I'm sorry, father Odin," Leif said slowly, rising at last. Something in the grave old figure had made the acknowledgment of relationship more than a formal salutation. "I had no wish to add another of your sons to the list who are traitors to you..."

"Nor have you." Thor's voice was brusque, and as low as it could ever be. "We heard Heimdallr's words; Loki made them clear enough. When a man or god betrays his roots, he is a traitor; when he protects them, nothing can make a traitor of him. By Ymir, if you didn't chain us, I'd chain you between Asgard and Niflheim. Anyhow, what is another thousand of your years, when we now have a thousand times that to live? Take the apples, Leif Odinsson, and go back to your earth with a clear conscience."

Leif picked them up slowly. He'd expected everything but that. Asgard would always be a place of surprises, and not the least of the amazing things was the length of Thor's speech.

"Sudri knows how to care for the tree while you sleep," he said, "And he may even be able to develop more trees. It is a possibility."

There seemed nothing else to say. He strapped the apples to his belt, feeling strange without the armor he'd gotten used to. Then he lifted his head and whistled. An answering nicker came at once, and Hoof-Tosser dropped down beside him, nuzzling him gently. Leif gave Lee a hand up onto the bare back, and prepared to mount.

Odin dropped his hands on Leif's shoulders. "Wherever you are, Hoof-Tosser will come at your whistle—to carry you about on Midgard, or to return you to Asgard. We'll be sleeping, but there'll be room beside our dreams for yours. I shall look for you when I awake."

Thor came forward, to shake hands gravely with both twins, and to lift Leif up onto Hoof-Tosser. Then the two gods turned and moved back down the trail, and only the sobbing wail of Sudri was left. Leif looked over Asgard again, savoring all the good about it for the last time, and hoping to catch a glimpse of Loki or perhaps another. Then he clucked softly, and Hoof-Tosser was breasting the swirls and patterns of Bifrost.

"Make way for the Svensen twins," Lee called out.

But Leif shook his head. "For Lee Svensen and Leif Odinsson," he corrected, before the swirls of Bifrost blotted out further words. It was easier this time, since he'd left the automatic with Sudri, and Hoof-Tosser moved forward at a steady rolling gait. Then that cleared to a sudden swoop, and the horse was landing, while bright sunlight poured down on them. They were back on earth.

LEE WAS off at a bound, staring about, and Leif slid down slowly. They had landed in a small clearing in the woods, near a trail that led to the house, not two hundred yards

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

away, almost as if the horse had known enough to avoid publicity.

"Home, sunlight, people—and some real whiskey!" Lee cried, stretching and sniffing the air, with his spirits high again. "Me for the whiskey. Coming, son?"

"Be along in a minute," Leif answered. He was vaguely conscious that Asgard had made him older than his brother, so that the old familiar relationship of admiration toward Lee's glamor was now almost a fatherly one on his part. He grinned faintly as he watched Lee hopping over the little obstacles on the trail, and started out.

Hoof-Tosser nickered again, and touched him with a nudge. Leif turned back, and his smile was fuller. "Go on back to Asgard, Hoof-Tosser; this is a lousy world for horses that can run through the air, above anti-aircraft guns. But sometime, I'll whistle you down again, and we'll take a ride at night when it's safe. How's that?"

The horse blew its breath sharply through its nostrils, shook its head, arched its neck, and was suddenly lifting and vanishing in a rainbow of color. Leif turned up the trail, coming out on fallow land. He stooped and smelled the dirt, rubbing it in the palm of his hand. It should have been plowed and planted. And the dead wood back there should be trimmed. There'd be work enough for him.

"Hi, Leif!" He looked up to see Faulkner working on a broken fence-post, with Summers talking to him. There had been no real cordiality in the voice, but there was acceptance. "Heard you'd be back soon. Be over to get things straightened out tonight. Okay?"

"Fine," Leif told him. He climbed the back steps, pushed through the screen door, and was in the old, familiar kitchen, with the warm earth smells of an honest dinner cooking on the stove. It was....

She turned toward him, smiling with a hint of tears in her eyes, and pulling the apron up over her head. Then she stood there, uncertain, waiting for his reaction.

"Fulla! Oh, you fool!"

She was in his arms, half-crying, half-laughing. "Fool yourself, Leif Odinsson! Did you really think I'd leave you alone down here—when I could ride Hoof-Tosser, too, before you needed him? There'll be a week—maybe two—before I change. And I can always go back then!"

Then she cried out as she felt the coffer of apples at his side and was tearing them out, counting them.

Loki's voice drifted in from the doorway, and Leif looked up to see him standing with his arm about Gail Faulkner, grinning at them, with Lee in the background. "Fulla couldn't wait to find you'd have the apples. She barely waited for me to tell her where to go. But while your apples can keep us going—it's all right, Gail, I'll explain later—can keep us for a while, I've got better news. Come here."

The sly god picked up one of the apples and moved into the dining rooms, munching on it in total disregard of the precious time it represented. He pointed out into the orchard.

"I told you I found out about grafting from that book! Do you think I wouldn't remember the years we slept? I had experts working on some cuttings the next day. Ten trees out there, all with Asgard apples!"

Leif looked at them, shaking his head. "They're blooming."

"Umm. Have an apple, Fulla. We'll have enough till they bear....I guessed they might bloom. They're on earth now, and plants are supposed to bloom every year here. So they bloom—and so can we."

"But...." It was coming too fast,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and Leif could no longer adjust his ideas to fit the facts.

LOKI TOSSED the apple core casually out onto the grass. "Don't worry, I promise to take none back to Asgard. But until I have to, I don't intend to go up there for that type of sleeping, either. Hey, Lee, did you see the newspaper? They're building rocket ships for the planets—somebody found a miracle fuel. Come on, I'll show you the paper. I've got an idea Venus is actually Asgard, Jupiter is Muspelheim, and the moon is probably Jotunheim. Fits, from all the experts know. Come on, Gail."

Leif heard sudden enthusiasm come into Lee's voice, and a sudden babble of immature plans of getting into the crews and losing no time in getting a berth on one of the rockets. He flashed Loki a grateful glance, and led Fulla out into the yard and toward the orchard.

She linked her hand in his, her figure slim and golden in the sunlight as they stood looking at the little trees. Then she dropped down, running her fingers through the soil, watching it as it packed into a loose ball in her hands.

"We'll have to dig up a preacher, Fulla," he told her. "It wouldn't do to have our children think we were fallen gods, just because we didn't go through the right formalities. Think you can stand being a simple farmer's wife?"

"Oh, Leif! But the rockets...."

He shook his head. "You've got me wrong. I'm not a hero, honey. I'm just what I said—a plain, old-fashioned dirt farmer. Mind?"

She showed him she didn't.

Well, in a way, it was good to have been a hero. Every man should have a chance to win his girl, kill a few giants, and be a god for a while—and most men probably could if they could forget their fears long enough to try. It was comforting to know that those fears were gone, and that he wouldn't have to dream about questing for grails or going to other worlds, envying those who did it.

But it was better to get back to the things a man really wanted.

He settled down onto the grass beside her, letting the sun shine on them, relaxed and content. Then he grinned.

"Or maybe I am a hero, of sorts. Giants are easy enough to kill, and they stay dead. But now you take quack grass...."

THE END

THE CORNEAL LENS

★ By JUNE LURIE ★

ORDINARY eyeglasses may be eventually a thing of the past. The recent startling work with "contact lenses" has brought these devices to the attention of many people and as a consequence those who can afford and adapt to them, are using the simple contact lens. Everyone is familiar with contact lenses which are essentially hemispheres of glass fitting directly over the eyeball and under the lid, mounting in their centers little bulges of glass filled with an "eye-matched" fluid.

As ingenious as these are they are rapidly giving way to a simpler variety, consisting of a thin cap of plastic or glass which is no larger than the diameter of a cigarette and which rests over the cornea of the eyeball, being held in position by capillary attraction and the curvature of the cornea. Inconspicuous and easily removed, tolerable for long periods of time, these new corneal lenses are the eyeglasses of the future.

It is perfectly possible to realize that in the future we may see people showing no evidence of common eye deficiencies at all —they'll be wearing thin corneal shells—with no one the wiser!

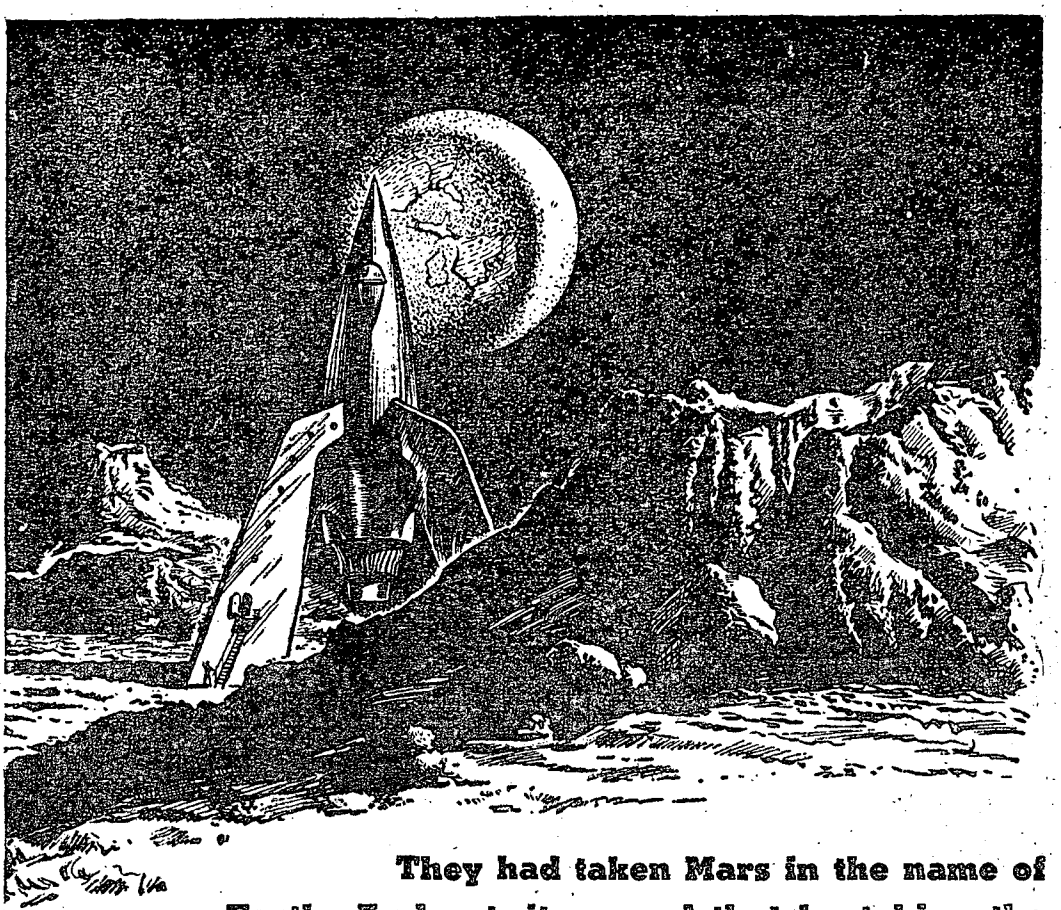
PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

TO THE VICTORS

By H. B. Hickey

Men stood by, weapons held ready for any possible action by the Martians...

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



They had taken Mars in the name of Earth. And yet, it seemed that by taking the planet, they were actually being absorbed . . .

IN THE faint light of early dawn, with the wind still blowing cold off the polar caps, the rocket landed in a shallow valley of the dead sea-bottom. From hatches on both sides of the ship twin files of men issued, guns ready, and quickly fanned to points of vantage. When the protective cordon was complete the rest of the crew emerged, led by the captain.

Quickly the captain unfurled a large, varicolored flag handed to him by a junior officer. A single thrust was sufficient to drive the haft deep into the soft sand. As the wind rustled through soft silk, the captain spoke:

"By the authoriy vested in me by the federated peoples of Earth, I do hereby proclaim this planet, Mars, property of Earth, and all its lands and peoples subject to the laws thereof."

Only the whisper of drifting sands replied. The captain shivered, as though the wind had crept under his insulated jacket, and spun about to re-enter the rocket. His men followed him, stepping briskly. The hatch slammed shut.

"All right." The captain's lean, hard jaw jerked at the navigator. "Get that mumbo-jumbo in the log. 'On this hour, this day, this year, in the sight of God and his crew, etc., etc. . . . .'"

"Yes sir."

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

While Harbison scurried forward to make the entry the rest of the men gathered around the captain. In the narrow aisle of the completely functional vessel stood the officers; the enlisted men hung from the tiers of bunks. The captain's sardonic gaze touched them all briefly.

"All right. It's official. We've effected a safe landing. We are the first men on Mars. Anyone want to cheer?"

"Yeah," a man said tiredly.

Captain Slater's mouth thinned to a long line. "A month's pay for answering a rhetorical question, Mannix."

A wave of angry silence broke against the tall, hard figure in the blue uniform, but left him unaffected. He had not been given this command on the basis of his popularity with subordinates. Popularity, he had always felt, was the small change from a broken authority; it made a pleasant jingle but bought nothing.

"Mr. Connerly—" his glance flicked at the stubby biochemist—"you may proceed with your soil samples. At any sign of danger return at once to the ship."

The little civilian stared at him. "But what about the atmosphere analysis? I'm supposed to—"

"You were outside a moment ago. Did breathing nauseate you?"

"Well no, but—"

"Then it's good atmosphere."

He turned to more important business. "Lieutenant Meers. Take ten men with you. You will scout the area—" Slater consulted a chart, "—six degrees due north of the *Solaris*. Should you—"

"Does that include that town?" Meers interrupted. "Sir?"

Slater's eyes measured the lieutenant and found him six inches taller. "No. I meant you to scout for fossils, or pretty sea shells."

Meers flushed and the captain resumed: "Should you find the village inhabited, make friendly overtures to the natives. But at the slightest sign of hostility you are to take decisive action. And if I may anticipate your question, Meers, *decisive* includes shooting to kill. That's all."

GLIMPSED from the ship as it glided toward a landing, the town had shimmered ghost-like, trailing an ectoplasm of rising mist from the empty sea on whose shore it stood. A small town; not more than half a hundred houses, Slater had estimated.

Toward it, his dark features still tight with anger, Meers proceeded warily. At his rear eight men formed a diamond; in the center of the diamond two men lugged heavy recoiless weapons. They were all tired; lessened gravity had been more than counteracted by the two feet of powdery sand through which they sloughed; and the thin air of Mars was no shield against the broiling sun.

Meers flung his right hand downward and the diamond came to an instant halt. The men watched him climb a final hummock.

In sunlight the town had a crystalline quality, low octagonal buildings arranged hexagonally. Meers studied it awhile; then, twisting around, he signalled one of the heavy-weapons men to him.

"Cover us from here," Meers ordered. "If anything happens, try to give us a chance to duck. But don't wait too long."

Now, with his last concealment behind him, Meers moved swiftly at the head of a lengthened diamond. Swirling dust, borne on the hot breeze, whispered caution in his ear. But it was too late for that. Besides, Meers had no imagination.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Inside the village it was strangely cool. They moved among reedy trees, cobweb branches festooned like Christmas trees with green and violet and orange fruit. Underfoot the rosy grass was like fur, like mink the gently waving hedges.

In the gardens curtains of water, like panes of shattered glass, tinkled from invisible fountains to the accompaniment of strange music. On eight crystal legs the houses stared eyeless.

Meers parted a hedge and stepped through it. Two small creatures, the size of capuchin monkeys, lay on the rosy grass, drowsing. Without fur, without tails, they were the color of newly minted gold. Circlets of golden metal, the size of bracelets, clasped white tunics of iridescent material to their fragile waists.

Meers moved. Four eyes, like eight-faceted sapphires, shuttered at him. Shrilling, the creatures fled, their limbs flickering like golden xylophone hammers; the house absorbed them.

Keenly aware of the ugly weapon snouts that poked through the hedge behind him, Meers stood his ground. He waited only a brief moment.

A man appeared in the empty doorway. Stilt-legged, bone-thin of arm, with eyes like two round typewriter keys sunk in white skin, it was nevertheless a man. At least humanoid. Another figure, slightly more rounded, appeared beside it. The female of the species, Meers thought.

Keeping his left hand on his holstered gun, Meers stepped forward several paces. His right hand came up, palm outward, in the ageless gesture of peace.

There was a pause filled with the shrilling of the two creatures on a balcony above. Then the Martian and his woman stepped down from the doorway. Their own hands came up, palms outward.

ON SLATER'S map the town was now represented by a red circle. About him, in the control room, his staff clustered. Half civilian, it was therefore by half not of his own choosing.

"You deliberately provoked Lieutenant Meers and that crewman," one of the civilians said. "Why?"

Slater regarded him calmly. "To make their trigger fingers more reflexive. The situation may require a strong hostility factor; I supplied it."

"But suppose this town is only one of many. Have you thought what we may stir up?"

Slater had, in fact, given that question a good deal of thought. In the end he had made his decision on admittedly inconclusive evidence. He had radar charts made a year earlier by a robot rocket; the charts showed no cities at all. Yet it seemed reasonable to believe that while the radar might have missed a few towns, it could not have missed every one of a considerable number.

"I'll stick with probability," he grunted.

"That might be worse," a man in a gray suit grumbled. "We might lose our only chance for communication with the remnants of a culture."

"The time to admire a culture is after you've destroyed it," Slater told him. "No Custer's Last Stand for me."

"But it may be a superior culture to ours. There may be a life form superior in intelligence to ours."

"Precisely. And maybe superior in weapons. If so, why give them a chance to shoot first?"

He looked up as the biochemist entered the room. "Ah! Here's the culture I'm interested in. Soil culture. Well, Connerly, will anything grow in the stuff?"

"Anything!" Connerly chortled. "Probably been fallow a million

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

years." Then his face lost some of its animation. "Of course it would take a lot of water."

Slater scowled. "Nice delivery on the death thrust. You should have been a toreador, Connerly. That's all."

Well, at least the problem of water, unlike the problem created by the appearance of the town, had been foreseen. And with an overpopulated Earth dependent on the solution to that problem, these fools could worry about moral niceties!

Still thinking about the water, Slater lifted a handset from his desk. If it stayed quiet they'd have to try drilling, unlikely as that prospect seemed.

"Captain Slater," he said. "Anything stirring?"

The officer of the watch matched his clipped tone. "Nothing, sir." His voice rose suddenly. "Wait! Something out there!" Slater heard him cursing his field glasses as they refused to focus quickly enough. "It's Lieutenant Meers and his party!"

"Cover them," Slater ordered.

He banged the handset down and paced out a half hour wait, impatience bubbling in him like acid in a vat. Meers must have run into something; otherwise he wouldn't have been gone so long. And despite his needling of the lieutenant, Meers was a good man. All good men, the captain thought, or they wouldn't be here; not on this trip.

MEERS PAID him back for the jibe by presenting a completely impassive countenance as he entered the control room. Simply by looking at him, Slater could get no hint of whether the news would be good or bad. "Report," he growled, letting Meers take the trick.

"Yes sir. The town is inhabited, sir. Somewhere around a hundred and fifty Martians living there."

"You made contact?"

"Yes sir. I had the men cover me—"

"Naturally," Slater interrupted. "Since we heard no firing I assume the natives are friendly."

"Well, yes and no, sir." Before Slater could snap at him again, Meers hurried on. "To tell the truth, sir, they just didn't seem too interested in us."

The captain's face was a mask of thought. He had made it a two-valued proposition, friendly or unfriendly. Indifference had not seemed even a remote possibility. And despite Meers' opinion, it still did not. The thing smelled slightly as far as Slater was concerned.

"You mean you swallowed that and strolled off, losing us the advantage of surprise?"

His scorn was withering but Meers stood his ground. "In view of certain facts I decided to suspend judgment. Of course I left half the men behind to cover the town and make sure nobody trailed us back here."

"You should have left all ten," Slater grunted. "But what are those facts?"

"First, they've got some kind of air conditioning. Not just the houses, but the whole town. Second, there's an abundance of flora, including fruit trees."

"Then there's water!" Slater's voice took on a scalpel edge. "I ought to break you for taking a chance like this!" He spun around and lifted his handset, intending to order immediate action, but Meers interrupted.

"Just a second, captain. They've got water, plenty of it. But it flows out of plain sheets of crystal quartz, or something like quartz. It's amost magical, sir, and I figured we'd better not take a chance of damaging anything until we get an idea of how it works."

The captain rubbed his jaw. Meers

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

was a good man. If they got through this he'd recommend him for promotion. But he made certain his voice did not betray his thought.

"Did you parley?"

"Just a few signs."

"We'll have to improve that situation," Slater said. He turned away, then remembered Meers was still standing there. "That's all, lieutenant."

WITHIN a week the captain had a late supper in the town, in the very same house which Meers had first approached. It was his first visit to the town, and Slater disliked the idea of being in the enemy's camp. But drilling had failed to tap water, and time was running out.

He was as impressed as Meers had been. The house was comfortably warm, so were the gardens and the town itself; yet there was no visible heating equipment. Sheets of water still cascaded from the crystal quartz, but now the water steamed in the night.

Slater had lit a cigar and then let it go out. The heavy smoke had vanished instantly; there was no enjoyment without the visual, like smoking in the dark. He leaned back now, gossamer supporting his weight gently, and through the crystal roof saw Earth riding the night sky.

His host rolled an orange fruit through a small trough and handed it to the small golden creature on his shoulder. Sixteen slender digits accepted it, brought it to a tiny mouth. The next fruit went to Slater. Gingerly, he bit into it; just hot enough, it tasted like steak, medium rare.

"Very good," the captain murmured. "You seem to enjoy not only the luxuries, but also the more pleasant necessities."

His host thought about the remark. A week with language disks and the untiring efforts of Slater's linguist, brought along for precisely such a contingency, had taken the Martians well beyond Basic English. "We have what we need," the Martian said.

On the woman's shoulder, between bites of fruit, another of the monkeys chattered. Slater wished it would stop. He had some tricky terrain to navigate.

"Have you lived here long?"

"All our lives." The black eyes with their irregular white irises might have concealed humor; Slater couldn't tell. "What is your planet like?" the Martian asked politely.

Slater gave him a vague description of Earth, leaving out everything of real importance. The Martians seemed not to listen very attentively. Sparring, Slater thought. He got down to cases.

"That's an interesting device." He pointed to the trough on the table. "How does it work?"

"You put things into it. They become hot," the Martian said.

Damn them, they *were* sparring! But Slater did not let his exasperation show. He relit his cigar, using the motions to dispel some of his anger.

"Very interesting," he said, not quite keeping the dryness out of his tone. He put his thoughts on the sheet of crystal in the garden. "Also the fountain. That works very cleverly."

He half anticipated the answer, but to make matters worse the female Martian opened a panel in the wall and let a pair of violet birds into the room. Between the ungodly chirping of the birds and the shrill chattering of the two monkeys, he felt his mind lurch.

"Yes," the Martian was saying. "Very cleverly. In the heat of the day the water runs cold. At night the water is hot."

"But where does the water come

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

from? Do you know?"

"From the crystal."

ANOTHER few minutes of that, Slater thought, and he'd have blown his damper. Pacing back through the bitter cold of the night, he let some of his anger find release. "Damn cute, aren't they?"

Around him, his officers growled assent. There was silence after that as they bowed their heads against a rising cloud of dust. Then the *Solaris* loomed ahead and for a while they were busy removing their insulated suits, shaking the powdery sand from themselves.

"Damn!" Slater cursed again, rubbing his cold hands together. "Figure the cubic area of that town, then realize the difference in temperature between the outside and inside. Imagine the power supply they must have! But if I'd asked them how they kept the town warm, they'd have said, 'with heat'."

"May I say something, captain?" inquired Berthold, the linguist. "It is possible these Martians are quite unintelligent. Notice how simply they live."

"That's a sign of intelligence, I'd say," Slater grunted.

"In this case I think not, and I've spent more time with them than anyone except Lieutenant Meers. No, I'm reminded of the primitive Polynesians, especially by their childish devotion to their pets. They carry those little animals everywhere, you know; actually treat them like members of the family."

Slater's lips curled. "And these *primitive, stupid* Martians just *accidentally,* I suppose, invented all those things? No, I won't buy that."

"What if they *didn't* invent them?"

"What if—?"

"Precisely. It's obvious, by the resemblance between the Martians and those monkeys, that the pattern of evolution here has been much the same as on Earth. Eventually there emerged a super-race, which built this town with its wonders and perhaps many others. And then, as super-races will, proceeded to destroy itself.

"It's quite logical that the only survivors should have been those whose nervous systems were least sensitive. They simply moved into the vacant village and enjoyed its comforts, without at all understanding how anything works."

Slater grunted. "Quite a theory."

"Yes, but supported by observation. For instance, they have no concept of God, as we have. I tried to explain our notion of a Superior Being on several occasions. It elicited from them a word, half fearful and half reverent. *Thlanct,* or something like it, was the word. In all probability *Thlanct* is the legendary super-race that created this town, a race to which they attribute many of the powers we associate with the Deity."

The captain seemed to be only half attentive as Berthold spoke. His fingers toyed with the chart on his desk, tracing over and over the red circle which was the town. At last he picked up a pencil and with two quick strokes put a cross within the circle.

"Well?" Berthold demanded. "Doesn't that seem logical?"

Slater glared at him, annoyed at the interruption to his own thought. "What's the difference?" Then, as Berthold's eyes went wide, "That's right. It doesn't make a damn bit of difference!"

With a quick yank, Slater brought a speaking tube down to his mouth. His tone as he spoke was that of irrevocable decision.

"I want a general issue of small arms. At once! Break out portable floodlights. All hands prepare for immediate action!"

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

HE HATED the necessity for explanation. His was the command; that should have been sufficient. But it was not. These incredulous and horrified stares were a silent demand for justification of his plan, and he would have to justify it.

"Perhaps you gentlemen have an alternative solution. Shall we pack up and go home?"

They sputtered, all trying to talk at once. At last one of them succeeded in shouting the others down. "Surely there must be another way! If you accept Berthold's theory—"

"Suppose I do. Or suppose I don't. The Martians either don't know the answers or they're simply not telling. Which means we'll have to expropriate their property so we can subject it to analysis, or use strong methods of persuasion. Either will be resisted."

"But this is brutal, inhuman!"

Slater remained calm. "Of course. Whenever man meets an obstacle in the path of his conquest of the universe he removes it by being brutal and inhuman. I'm only following precedent."

"But to murder innocent people who haven't lifted a finger against us!"

"Not people," Slater reminded him. "Martians."

He saw that he had scored a point. After all, they were only Martians. Looked at in that light, there was a difference. It would obviously have been foolish to let one hundred and fifty Martians stand in the way of the federated peoples of Earth.

"Good," Slater said. "Then that's settled."

He was already zippering his insulated outer garment, glad that for the rest he would be dealing with men who knew how to take orders without asking foolish questions.

Watching his men file out of the *Solaris*, the captain even felt a surge of pride. These were Earth's finest, every man battle-hardened, a perfect fighting machine equipped with the best weapons of an advanced civilization. Marching over the cold sands beneath the twin moons of Mars, they symbolized to Slater the irresistible march of his race.

He gathered them around him at the last hummock before the town. Crisply, he ticked off their assignments; these to encircle, these to man the floodlights, these to infiltrate. And, as always, he himself to lead.

They went in quickly, like wraiths, into the sleeping town. Drifting through the furry hedges they made no more sound than the sighing breeze. On silent feet they slipped into the houses, through the doorways without doors.

To Slater, as he stood in a garden, it seemed as though the houses, even the warm, bubbling fountains, welcomed them. How long had they waited for someone who could appreciate them and put them to use?

Wait no more, he thought. His right hand lifted; his index finger tightened on the trigger of his gun.

Instantly the town was bathed in the harsh glare of the floodlights. And without perceptible lapse of time, as he had known would happen, there came from within the houses the brittle sound of gunfire.

IT WAS over quickly. A few scattered screams Slater heard. He even recognized the word. It was the one Berthold had mentioned: *Thlanct*. Slater's lips curled. The gods were always too late to help.

And yet with the guns already silent, with the men beginning to appear in the doorways, it seemed to the captain that he still heard screaming. Echoes, perhaps. But too shrill for echoes.

Looking up, he saw the golden

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

creatures appear on the balconies. "Why? Why? Why do you destroy our servants?"

Shrill, like the chatter of angry monkeys, but still recognizable.

Thlanct, Slater's mind said. The possibility too outrageous for him to have considered; that the humanoids should have been the pets and the golden capuchins the masters.

And yet it made sense. Like well cared for canine pets on Earth, the humanoids had been made comfortable, had been given enough to eat, even the scraps from the mouths of the *Thlanct.* Enjoying the benefits of *Thlanct* science, they had understood it no better than a dog understood electricity.

Strange humanoids had come; to play, perhaps. They had been treated well, even fed, as a neighbor's dogs might be. But they had repaid kindness with murder.

Our servants! Our pets! There was anger and the threat of retribution in the shrill cries.

Quite calmly, even aware of his voice shouting orders, Slater raised his gun and sighted along the barrel. And something like a wave of rising heat shimmered toward him, rolled over him and over his men.

Under Slater's feet the rosy grass was springy and soft. He paused lethargically beside the fountain and let the water run over his hand and a shrill voice in his ear told him to move along. He moved.

Beside one of the reedy trees he stopped again, this time to pluck a purple fruit which he handed to the golden creature on his shoulder. In a little while the unconsumed portion was handed back down. Slater chewed it ruminatively.

In the next garden Lieutenant Meers also plucked a purple fruit. Across the hedge his eyes met those of Captain Slater. There was no recognition.

And near the shore of the dead sea-bottom the rocket ship lay, already half hidden by sand. Over it blazed the Martian sun; its requiem was whispered by the dry and burning breeze. But in the town there was cool and quiet.

THE END

OMNIRANGER

★ By LESLIE PHELPS ★

THE QUEER word "omnirange" describes a new miracle which has been quietly spreading itself over the United States without fanfare or noise. An "omnirange" is a special kind of radio station similar to, but vastly improved over, the older conventional radio range used for guiding airplanes.

An "omnirange" station looks like a very futuristic dishpan antenna mounted atop a square tower. It sprays out radio signals in all directions. But the unique thing is that the signal sent out is different for every shading of direction so that a pilot knows exactly where his plane is with respect to the "omni". This is an enormous improvement over the relatively crude radio range station which merely pointed out four directions and not very clearly at that.

Already there are more than three hundred of these stations spread over the U.S. with another hundred or two to come, effectively blanketing the country in an invisible spider's web of guidelines. Application in foreign countries is also being made. In the not distant future it will be possible to fly anywhere in the world practically, at all times under the complete guidance of the "omnirange" beacons.

This system of navigation coupled with the instrument landing apparatus, makes aircraft navigation almost child's play. Eventually it will be as easy to pilot a plane as drive a car. Eventually also, the omnirange will undoubtedly play a considerable part in any rocket transportation that is developed, for certainly the speeds involved preclude crude hand navigational methods.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE METAL ARM

☆ By H. R. STANTON ☆

SCIENCE FICTION has called the turn on so many scientific inventions that it becomes tedious trying to keep track of all of them. In the last few years we've made a point of almost predicting step by step forth-coming inventions which were bound to follow some of the new discoveries. Cybernetics, the science of the robots, offered some fascinating opportunities for predictions, and it's come through with another result which we expected for some time.

A robotic, electrical arm has been announced by the maker of large computing mechanisms! This metal shell, equipped with a nylon hand and housing a miraculous array of motors, relays, wiring and other parts is designed to assist the unfortunate amputee better than has been thought possible. The arm is an incredible, complex structure of machinery which can duplicate surprisingly well the motions and actions of the human arm and hand.

The gears and relays are housed in the arm along with the levers and cams, while the power supply consists of a battery carried on the body. The control of the arm is the truly ingenious aspect of the apparatus. It is controlled by the *toes* of the wearer! A sensitive series of switches is worn in the shoe beneath the toes. Motion of the arm is actuated by simply pressing against these switches whose wires run up to the electrical parts of the arm.

The switches are sheilded with small balloons so that ordinary walking can't cause them to operate. The conventional methods of moving the major part of the arm by straps across the shoulder is still retained leaving the greater part of the electrical apparatus for directly manipulating the hand, which up to now has been the hardest thing to control.

Naturally this device is only makeshift and is certain to be improved upon, but it is definitely a step in the right direction, especially when one thinks of the crude devices used till now. The promise of this sort of "human engineering" is great.

ANTIBIOTIC ACCELERATOR

☆ By CARTER T. WAINWRIGHT ☆

THE MEDICAL men bring in the twisting writhing child from the Neapolitan slums. Arms like matchsticks, bloated bulging belly, protruding eyes—marked with rickets and malnutrition, the frightened child is gently conveyed to the medical examining room. The kindly Chief Examiner looks at the child. He says one word—"aureomycin."

Three months later from the hospital ward, a gleaming active little boy steps out. His body is strong and sturdy and from the light in his eyes you can tell he is smart and intelligent. He moves briskly like any healthy youngster. Is this the same child?

Well, we haven't reached that stage yet. The little story so far is only imagination—but the promise is there.

Aureomycin, the golden anti-biotic drug is promising to do as miraculous things as its brothers have. Scientists have discovered an amazing fact—aureomycin is a growth-accelerator!

Given to animals ranging from chickens to pigs, this astounding drug stimulates growth at fantastic rates.. It is mixed in very small quantities in with the natural foods. After a few weeks, it is found that the animals are gaining weight—sturdy sound weight, not flabbiness—but fast.

In a matter of a very short time, healthy animals are produced, much as if they were capable of assimilating vitamins at a much faster than normal rate. Furthermore their health is increased and sickness so common among domestic fowl and livestock is practically eliminated.

This means that protein foods will come down in cost as soon as these techniques are applied on a large scale. But the important thing is what it will mean to humans. So often human beings, victims of dread diseases fail to recover because their systems cannot rebuild wasted tissues fast enough. Science has long sought a way to increase the structural rate. Aureomycin apparently offers a solution. As yet the use of the drug is still in the highly experimental stage—but time will take care of that.

Also, up until now, the antibiotic drugs, like penicillin and aureomycin have been used chiefly as disease-fighters. Little attention has been paid to their phenomenal physiological growth effects. Well, that's changed now.

Malnutrition has claimed many lives—thanks to aureomycin—("aureo-"—meaning golden), it will no longer be an important agent. There is only one disturbing thought. Is it possible that human growth drugs will come into use?. Is science leading into controlled human physical size?

★ ★ ★

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

As they boarded the vessel they could see the rushing wall of water draw near . . .

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CHRYSALIS

By L. Major Reynolds

THE GREAT inanimate lump stirred uneasily. A dull yellow case fastened to its back cracked suddenly and what looked like a tangible golden mist emerged from the mass of broken fragments and stretched its tenuous length until the shape quivered with the strain. The shards fell away and stillness reigned once more. The shape subsided again into the stupor that was almost as deep as death itself.

OOG, SON of Og, had forgotten the first law. Intent on his feeding prey, he had neglected to keep watch behind him. Slowly he shifted his position and brought back his arm. The weight of the rock he held would crush the skull of his victim as if it were

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

thin ice. His mouth watered at the thought-taste of the meat.

Suddenly the animal flung her head high, and with a bound, sprang from her feeding place. Oog snorted his disgust as he watched the speeding form disappear. He rose to his feet just as the snarling roar sounded behind him. He whirled to stare at the great scaled lizard behind him.

Many times he had met one of old Long Fang's clan, and in spite of the many scars he carried, had always emerged the victor. Always in the past there had been some sort of refuge. Here on the plains there was no shelter, and the towering cliff behind him showed an unbroken surface. He tensed, and as Long Fang was almost upon him, Oog gave a great sideways bound, causing the reptile to miss him completely.

As Oog's feet touched the ground he ran with his utmost speed, straight from the cliffs which towered over him. He could hear the heavy snarling of his pursuer, but he dared not turn his head. He sensed the next leap, and darted swiftly to one side. Again he escaped, amid the frustrated roars of his assailant.

But now, his aggressor was in the strategic position, for Oog was between the reptile and the cliffs. There was no other way to turn.

The dinosaur, sinuous tail lashing, and long white teeth gleaming, stood erect above the hapless man, ready for the kill.

But Oog still held the rock with which he had stalked his meat.

The reptile drew nearer and nearer, a faint spark of caution in the dull brain. Oog retreated until his back touched the rocky cliff and, as the scaled monster made ready for the final charge, threw the heavy stone with all the force he could muster.

The anguished scream of agony as one of the great fangs was broken off, sounded sweet to Oog's ears. And then, he suddenly realized what it meant. A cold deliberate attack against a pain-maddened one, was the difference between life and death for him.

Slowly he backed along the bottom of the cliff, watching the throes of the creature. It was overcoming the first shock, and once again was setting itself for the spring that would mean the end.

THEN, AND only then, did Oog remember to call upon his Gods. Life was a sweet and precious thing which was soon to finish in the maw of the great thing before him.

Even in his panic, he felt the cliff quiver. His back was pressed tight against the overhang. Unwittingly his eyes turned upward, and then he was shrinking his body into the smallest possible space. The entire top of the immense cliff was tumbling down directly toward him.

The uncounted tons of stone caught the dinosaur in mid leap, crushing it to a pulp. Oog stood frozen in his tracks with fright for a long moment.

As he climbed over the mass of rubble, he was met by others of his tribe who had heard the mighty sound. He stopped on a high point, lifted his arms above his head, and intoned:

"So do the great Gods spare the life of Oog, son of Og. He who was at the point of death from the claws of Long Fang, has been saved to lead his people. Here on this spot we will build a place of worship to the Gods who have saved the life of Oog the Mighty!"

And from the tumbled rock, the tribe built the temple for Oog. Many were the sacrifices that were made. So many, that the people grumbled at the waste of slaves. But blood mixed mortar is one with stone.

But Oog was not content. More

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and more must hear of his miraculous escape from sure death. And, in the telling, Oog's stature grew. At first it was one, then dozens of Long Fangs he had battled. First, it was the Gods, then Oog himself who had caused the cliff to fall.

Larger and larger the temple grew, until the people were hard put to find the time to hunt for food. And some of the mightiest hunters were chosen for priests, who grew fat and lazy in their lives of idleness. But at last everything that could be done was finished. Then Oog gave the command that had lain dormant in his fertile brain for so long.

"Hear me, my people. You have built well, and except for one thing, I am content. As your High Priest, I will have many priestesses. These are to belong to me, and only to me. Those I choose must obey me in all things, and none of you shall ever show doubt of my judgment. For the Gods have chosen me, Oog, to rule you forever, and I must heed their commands!"

Many were the life mates who were separated forever when Oog made his choices. And many were the mutterings raised against him as he left the motherless babes to the suddenly widowed men.

For a few moons the ideal life went on, and then one morning Oog awoke and called for his meal.

There was no answer. He emerged from his temple in a towering rage.

He was alone.

The form half awoke, and a foot tried to stir, but the coma returned before the movement could be finished. For a long time it lay quietly, then, with a sudden motion, a leg came from the embryonic lump, and straightened for a brief instant. It was drawn back, and again the thing slept peacefully. Now there was the faint sound and motion of breathing.

THE MAN stood on the top of the natural dam and watched the sea break against it. In his lifetime, and in the times of his ancestors, it had been a bulwark against the ocean. But since the queer earth-quiver a few days ago, each wave that struck caused a peculiar shudder in the mighty mass that was more sensed than felt.

An oversized breaker spread itself across the face of the barricade, and the rock visibly shook. The man nodded his head as if he had made his decision, then turned and walked down the opposite side, into the valley below. As he went, he thought over the things he might tell his neighbors and friends, about the actions of the protective barrier that once was as steady as the land itself.

He looked over the green and smiling land below him as he went, and frowned at the fruitfulness of the fields. If what he dreaded should happen, there could be no more life in the great valley, but only death and destruction.

As he entered the village, he was greeted by the people with respect, for he was loved by all. He walked on to the center square, and turned to face them.

"I bring you evil tidings," he said slowly, "but all is not lost. We must find another land in which to live, for the great natural dam which has protected us for so long will not, I think, last for too many years. Therefore, each of us shall start searching for higher ground away from this friendly valley." He stopped and smiled down on the circle of faces, and his eyes widened at the cries that came from them.

His head dropped as his one-time friends reviled him, and scourged him with their words. Silently he walked

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

through the hooting crowd, and still silently, went along the road to his home. Bitter indeed was his heart within his breast.

He stood for a long time at the doorway of his home, looking back to the small town. His head shook in wonderment at the fleetingness of friendship.

And to the young man who approached him:

"My son," he said quietly, "I have tried to give the news I bear to those of the village. The great wall of rock which holds back the sea, is none too strong. Long it has been our protection, but since the earth shook, so it shakes now as the water strikes against it. There is no place we may go without taking those of the village with us, so we must remain to suffer the same fate as they."

"But, Father, it is not right that we should accept death so easily! Is there no escape?"

The man thought long and deeply. "My son, you have given me courage. We *will* find a way, and I think I know what it is. Do you call all of our family here, and we will start the task that may mean life to us instead of the certain doom that is to come."

Great trees were felled in the following days, and slowly the keel of a ship was laid. Many were the jeers the workers had to forget as they toiled through the long summer days, but the work went steadily forward. From all over the once happy valley, supplies and provisions were brought to fill the vessel. The cattle were taken aboard, and the horses learned the ways of their new stable.

The time came when the last plank was set in place. And then the man and his wife, and his sons and their wives and children went aboard to start their new life. Then, there was nothing to do but wait. And wait they did, with the scoffings ever ringing in their ears.

The countryside was swept with laughter and ridicule, as the people passed by and saw the ungainly ship sitting in the green meadow. And the man smiled in pity as he watched them. His heart was troubled by the thought of what would happen to all of those who had once called him friend.

But summer passed, and winter blew its cold breath, and still they lived in the ship, and never left unless it was needful to do so. And spring came early and bright, and there were murmurings on the vessel from the wives who could not visit the town.

And then the day came that the man had dreaded. A calm sunny morning whose peace was suddenly broken by a mighty rumbling. The great barricade showed mighty cracks radiating over its surface, and the ground shook violently. Just as the tremors ceased, a great wave swept over the top of the natural dam, and descended on the unsuspecting valley. Another and another came, and suddenly the barrier crumbled into fragments. The wall of water carried all before it with the exception of the ship. As the water rose, so rose the ship in safety.

When the raging torrent had stilled, the surface of a new sea was smooth and untroubled. And on that surface rode the ark with its cargo unharmed.

And the man was grievous for his friends, but well content.

The mighty chest rose and fell as if it were a moving tide. Great muscles underlay the yet unformed skin, and the immense thews of the legs gave promise of the strength to come. One finger, curled into the mileswide palm, stretched out to its full length,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and returned to rest quietly. No sign of awakening could be seen.

THE SAILOR picked himself up from the gutter where he had landed, and glared about him. No one, except a few idling loafers, spared him so much as a glance. He staggered drunkenly down the narrow street, mounting curses against the bartender who had thrown him out of the saloon.

"So what if I did make a grab for the she-devil," he muttered. "I didn't know she belonged to him! I've got a good notion to go back there and start sumpin'. I'll show him he can't do—" He broke off as he saw the lights of another bar before him.

He started to enter, but a hand on his shoulder whirled him around. One look was all he was able to get, and he tried to duck. But the alcholic reflexes were too slow, and the ham-like hand of his First Mate struck open palmed across his cheek.

"You drunken dog!" the mate yelled, "I thought I'd find you down here wit' the rest of the tramps! Now, get back to the ship before I beat your head in!" He gave his victim a shove that sent him sprawling.

And then, he was lying beside the fallen form, as the earth buckled and shook. They lay still until the tremor had subsided, and then fought their way through the crowd of panic-stricken people to the beach.

The dock was a milling mass of screaming humanity, and the two men had to use fists and feet to clear a path to the waiting ship.

The deck was canted at a dangerous angle as the vessel swayed wildly at her moorings. Each succeeding wave was larger than the one before, and as they struck the side of the craft, it seemed to groan in the agony of dissolution.

The Captain, guns in hand, stood at the top of the gangplank, threatening those who strove to mount it.

"Keep back there you swabs," he roared, "I'll take none but my own! Keep back or I'll shoot!"

With probable destruction behind, and certain death ahead, the mob hesitated, and in that hesitation their doom was sealed.

The mate and the sailor cleared the plank at a bound, and the mooring lines were cut. The ship lurched away from the dock, and for an instant seemed to clear it. The great wave rising behind her went unnoticed for the barest breath.

The sailor saw the towering wall of water, and threw himself across a great sea chest on the deck. Clinging with the strength of desperation, he was swept overboard just as the ship crashed full speed against the stone breakwater.

There were none who rose from the maelstrom of water and wreckage. The sailor, struggling with the chest, looked around wildly for sight of a familiar face, but only the upsurge of water met his wild-eyed stare. He finally opened the lid of his strange craft, and crouched in it, nearly out of his mind with frightened terror.

The backwash took him in its grasp and sent the chest spinning. On the beach he could catch glimpses of the frenzied people as they strove to escape.

Suddenly, the entire water front was split open as if with a mighty knife. Men, women, children, ships and docks were swallowed in the crevasse.

The next glimpse the chest allowed him showed the breakers roaring into the opening. No living thing was in evidence.

The crest of the mountain in the center of the island was a mass of flame. Great clouds of smoke made a murky glare over the surrounding

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sea, and he could catch glimpses where mighty streams of red hot lava crawled down the steep sides. He saw them reach the shore, and the resultant clouds of steam blotted out his vision.

Another great wave washed upon the shore, and when it returned it bore a grisly freight. They swam about him, their dead eyes lifted to his in the age old question, "Why should this thing be?" and in each of the faces he saw them all, and each dead face asked the eternal question.

He huddled on the bottom of the chest, and buried his eyes from the sight of the eyes which followed him, and from the glare of the burning mountain.

The mad sea swung the chest around and around in an insane parody of a dance, and the sailor lifted his eyes once more. Visible terrors are more bearable than unseen ones.

The flame-covered air seemed to wrap him in a tangible blanket as he swept the heaving waters in search of some sign of the living.

"I can't be the last one alive," he croaked through blistered lips. "There's *got* to be somebody else, someplace!" He cried aloud in a cracked voice, and strained his ears for an answer. But no answer came, and he sat, gripping the sides of the chest, staring at the whirlpool around him.

He was staring at the mountain top when it happened. The noise was from all corners of the earth at once, as the volcano burst. The noise that no man had ever heard before. Then madness came.

The sailor put two ineffectual hands over his ears, and screamed... and screamed...and screamed...

The being was complete now. What had been a nebulous something, was now a golden veil enclosing the figure in its folds. Points of iridescence sparkled and shone from it. The spawn of whatever Gods there be, was almost ready for birth. There was a glorious beauty in the gigantic figure, but it was different...alien. The deepest sleep comes just before awakening.

SAAR BIEN looked through the port at Earth spinning below him. It was strangely colored through the blast of the rockets, and seemed to waver erratically in the intense heat.

His eyes hurt from the strain, so he shifted his gaze to the forward port, where the moon hung in the black of space.

"This time we make it!" he spoke aloud in sheer exuberance to the walls of the ship. "Goodbye to a thousand years of failure!"

Strangely, there was little to do on the trip. The control board was a mass of dials, meters and remote control switches. The error of human fallacy had been shown in all previous trips. Some hitherto unnoticed weakness caused eventual disaster. This time, nothing had been left to chance.

He watched the cratered moon increase in size until it resembled a toy balloon inflated by the lungs of a Vulcan.

The hordes of distant stars, so friendly from under Earth's blanket of atmosphere, glared whitely from the ebon depths.

Bien half shuddered at the immensity of it all.

"I'm beginning to see," he thought, "just what caused every trip to be a failure. If I had any way to turn around and get back to Earth, I think I'd do it. God, it's lonesome!"

He jumped as the rear rockets ceased firing and the lateral ones

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

took up the task. The port was clear now, and he looked longingly at the blue hazed planet below him, enjoying for a few moments the foolish game of trying to find the exact spot on the North American continent where his home was located.

His home, and his bride, Mari.

He knew she was seated at the telescope, keeping watch on every move of the ship, waiting for it to make the turn of the moon, and start back on the most perilous part of the journey.

A sudden lurch knocked him from his feet, and he saw a green light flash on the board. A meteor had given him a near miss.

The moon had grown until it covered most of the sky. The glaring light from it was almost blinding, and he donned goggles to protect his eyes.

There was a clangor from the board, and a red light flashed. It was time for the rockets to cut off, and he would enter the zone of no weight.

Swiftly, glad of the chance to do something, he donned the harness that had been prepared for him, and as the rocket blast stopped, silence closed in around him.

Silence such as man has never known. Not ordinary silence, but a complete absence of sound.

The quiet beat on his ear drums in a crazy mute tintinabulation that sent great beads of sweat pouring down his cheeks, and his eyes almost started from their sockets. His lips were clamped thinly to keep back the peal of insane laughter he could feel rising inside of him.

Frantically, he looked around the narrow confines of the cabin in search of something to relieve the awful stillness, but everything was snugged tight in their fastenings.

For hours that seemed like days, for Bien, he hung helpless. Through the forward port, nothing was visible but the blinding whiteness of the moon, coming nearer.

For panic stricken minutes he thought he would crash into it dead center, then the lateral rockets again started their song, and he saw the moon swing slowly to one side, and the star-flecked black of space replace it.

With the great curve started, the tail blasts cut in, and Bien stood at the forward port, watching the scene below. He knew the cameras were recording everything, but he watched with eager eyes for the opposite side of the satellite to come into view. The side that no man had ever seen.

He couldn't tell when the point that he was looking for was reached. It was all a sameness. Disappointment gripped him by the throat.

The nose rockets came on briefly, and slowed the vessel just enough to allow the cameras to do their work. Bien's eyes searched the terrain frantically, but only craters and pumice dust were evident.

Far ahead he saw the first edge of Earth appear. He couldn't spare another glance for the whiteness that lay below him, but centered his yearning on willing more and more of the planet to come into sight.

He hardly heard the lateral rockets cut in. The ship curved gracefully and started back to the world spinning smoothly beneath him.

He smiled at the glint of the sun on the waters of the ocean, and even at that vast distance, he could catch the snowiness of the cloud masses.

"Just let me get back, and somebody else can have the glory! I'll never leave again!"

His face was against the port when it happened. A great crack split the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

entire Eastern Hemisphere, and a section of it flew off into space. Mountains crumbled to rubble under his horrified eyes, and the seas disappeared in a vast spray.

He was gripping the sides of the port when the Earth flew to bits, and he saw the great shrouded figure emerge from the fragments. The veil opened, and every iridescent point on it caught the full force of the sunlight, and blazed with energy.

With a speed exceeding that of light, he saw the giant alien whip out of his sight almost at once. Where it had been whirled and spun the remnants of a green and friendly world.

His voice was a thin thread of monotone that babbled—

"No....no....no....no—"

MECHANICAL COW

★ By MILTON MATTHEW ★

STRAIGHT out of all the satires that have been written about the mechanized world of the future, is the California assembly line cow! It's almost hard to believe—yet, it exists, and it sets you to wondering what the next step will be. *Brave New World*, that biting satire of Aldous Huxley, gave the mechanically minded prognosticators of the future a severe beating, with its ridicule of test-tube babies, and mechanically stimulated emotions. But such satires will have to bow down before fact.

An ingenious engineer has devised an assembly line technique for milking cows! It will handle an enormous number per hour and it makes the straight milking machine as obsolete as the milking machine made hand-milking!

The cows, (of a herd of hundreds) file into a narrow stall where they actually climb onto a moving assembly line conveyor which goes on at a rate of ten feet per minute. Automatic washing machines spray their undersides clean and sterilize them. One attendant at this point then fastens on the automatic milking apparatus.

Slowly the cows, contentedly munching their cud, move along with the conveyor while the lacteal fluid is drained from them. At the end of the conveyor line which is several hundred feet long, another attendant removes the milking equipment and the cow passes out of the barn!

The advantage of the machine of course is that only a few men are required to milk an enormous number of cows. Putting things on the conveyor line eliminates a huge amount of walking and additional help and is much faster.

We are inclined to laugh at such extreme measures in a technique as old as that of milking cows. We shouldn't really, because it's the coming thing.

As these methods spread, we can see the farm of the future changed completely from what we know now. The trends are underfoot. Soon they will be dominant. There will no longer be any farmers—they'll be "farmer-mechanics", and you'll have to have a doctor's degree in mechanical engineering in order to get eggs from a chicken!

LADY LUCK IS A TRAMP!

★ By WILLIAM KARNEY ★

WHEN YOUR eye roams over the accomplishments of industry, science and education, your heart could swell with pride. Admit it. Isn't that what you think when you see the wonders of the world around you? Of course it is. You think, "isn't it wonderful how far Man has come from the days when he was a primitive superstitious savage, not believing in the scientific method and trusting everything to luck or chance?"

Well, brother, you've got another thought coming. Man isn't very far at all from his primitive ancestors if you look at some aspects of modern living. And if anything he's more superstitious than ever. And to top it off, he's getting worse!

What's the authority for such a series of statements which seem to violate common sense? Simple—the authority is the state of *gambling!*

Gambling at present is a ten billion dollar industry which seems to be continually

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

growing. The fall of a die, the running of a horse, the flip of a card—something in human nature makes these trivial events assume great importance. There seem to be two classes of gamblers: first there are those who gamble casually for amusement. This class of persons does not fall into the superstitious category. It recognizes the laws of chance, it plays for the excitement of the game and it realizes that there are no mysteries to gambling. Nor does it permit itself to be fleeced by professional gambling activities. It knows that professional gambling is simply a very scientific way of preying on the fortunes of gullible credulous people who believe that the "laws of chance", that "luck" will eventually work for them.

These latter constitute the second class. To these unfortunates—and they total millions of people—scientists and public welfare people have been pointing out for decades, that organized gambling, from the spontaneous crap game to the race track to the gambling house, is simply a scientific way of inevitably removing them from their money. The professional gambler operates a completely scientific outfit, which an elementary study of the nature of the mathematics of chance, clearly shows cannot be beaten. A professional gambler does not "gamble". He operates a business establishment which by careful mathematical calculation, is run in such a way that he will make a very handsome profit on a comparatively trivial investment. This is not to imply dishonesty. The dishonest gambler is as dead as a dodo—on any large scale at least. A gambler does not need to be dishonest. All he need do is gamble and the suckers will flock to him, pouring away their earnings.

Someday, may be a hundred, may be a thousand years hence, historians are going to look over this period and marvel at our institutions and our customs. And they will be more astounded by the tremendous spread of gambling than by the horrors of warfare. He will regard us with the same astonishment that we regard the superstitious beliefs of the ancients. And he will know that apparently only education can breed the disease from the minds and hearts of the unfortunates who are caught in the fever of the gambling-lust. He will know that it is not on moral grounds that gambling can be basically criticized, but merely on the grounds of common sense and reason. And he will laugh long and loudly at our ignorance...

FINDERS KEEPERS

★ By L. A. BURT ★

IT'S NOT our habit to report on new gadgets particularly. We're more interested in relating those developments which promise great things for the future but we can't resist talking about a piece of gadgetry that really takes the cake. It's a radioactive golf ball!

Yes, that's what we said: a radioactive golf ball!

The owner carries a small portable, light Geiger counter. When he loses his ball in the rough, all he does is walk in the general direction of where it may have gone, listens to the clicking of the counter and presto!—he stumbles on it before he knows it. The secret is a small amount of a radioactive material embedded in the case of the ball.

In itself this trivial piece of bric-a-brac, while pleasing and useful, will not upset the world, but it does suggest some interesting possibilities. Any thing lost might be tagged with one's own personal radioactive material—then, tagging with a counter tuned to the set-up would be simple. Or carrying the thing to the extreme, a bit might be attached to Junior. He couldn't get lost then. "Honey, flip the counter, Junior's lost again,"—would be as simple as ay bee cee.

In a more serious vein, it is possible this material might be used for tracking lost soldiers or explorers...

SUPPLY and DEMAND

★ By JON BARRY ★

THE OLD economic law of supply and demand can't be better illustrated than in the case of radioactive materials. A short ten years ago, it was possible to go into any scientific supply house and buy all of the uranium and thorium compounds you wished. If you stepped up and asked for ten pounds of uranium nitrate, the clerk would say, "certainly, here you are, sir."

But don't try it now.

In those days uranium was practically a drug on the market. Demand was insignificant save for certain techniques like coloring glass and ceramics. Now of course, the Atomic Energy Commission has its thumb on every gram of the stuff produced in the country. The reasons are obvious. The home atomic experimenter who'd like a small quantity of the material in order to operate a Wilson Cloud Chamber or a Geiger Counter has to do some real scrounging in order to latch onto the miniscule ten thousandth of a gram he needs to kick the gadgets into action—and then he's uncertain of getting it.

Who knows to what materials this will extend to in the future? There should be some arrangement for amateur scientists to obtain these harmless materials in small quantities. After all, a man can't manufacture an atomic bomb at home—or can he?

★ ★ ★

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

'As he concentrated on his work he seemed to hear a strange, distant laughter . . .

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The DEVIL FINDS WORK

By Mack Reynolds

Making a pact with the devil can have certain advantages — especially if payment is not exacted. But who works for nothing?

"NO," THE poet replied, after considering briefly. "To tell you the truth, I never really believed I had one, nor that anyone else had for that matter, but now I am aware I have a soul I most certainly have no desire to sell it."

"Oh, come now," said Mephistopheles, ingratiatingly. "If you've been perfectly happy in the past without even knowing of this er...property, why should you be so loathe to part with it? —At a good price, of course." He drew on his Pittsburgh stogie with satisfaction, thinking he'd made a devilish good point.

The poet shook his head stubbornly. "If a soul wasn't of considerable value, you wouldn't want to buy it. And, not to change the subject, who said I've been happy in the past?" His face took on an esthetic expression which the demon found more than ordinarily nauseating.

"There," Mephistopheles exclaimed, "you admit it yourself! Your life has been less than satisfactory thus far. Come, let us not descend to common haggling; I said I'd give you ten years of whatsoever your heart desires. We'll make it twenty."

The poet ran a limpid hand through his long blond hair and hedged. "Just what do you mean by 'my heart's desire'?"

The tip of the demon's stogie burned red, he knew, being infernally clever, that he now had the other in the bag. "Just that," he said easily. "What do you wish most of life?"

The poet's eyes took on a far away glaze. "I want my verse to be on everyone's lips, my lyrics heard by all ears..."

"Exactly," said Mephistopheles. "With my assistance it shall be done!" To tell the truth, he was beginning to wonder if he actually wanted this jerk hanging around the nether regions for

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the rest of eternity; the place was getting rather crowded, business being so good these days that it was seldom any more that he resorted to this sort of deal. However, there was another factor involved and one that he hoped would bring him considerable renown in the best stygian circles.

The poet considered further, then said slowly, "If I accepted your assistance, it wouldn't be *my* work that became famed, it would be *ours* and I'm not particularly prone to collaborate with the devil."

The demon puffed irritably on the stogie. "Nonsense," he snapped. "Do you think I'd be bothered with writing verse?" The only kind of poetry that ever really appeals to me is a certain type of limerick." His dark countenance lightened a bit. "Listen," he continued, irrevelantly, "did you hear the one that starts, *'There was a young man from Kent'?"*

The poet placed his hands over his ears. *"Please,"* he murmured delicately.

"Oh, very well," said Mephistopheles, miffed, "but I'm particularly interested in sponsoring your career. You write the verse; I'll see it reaches the public, and at a goodly profit to yourself."

THE POET made a moue. "But if my poetry has the seeds of greatness, what need have I of your services?" He gestured sweepingly, albeit gracefully, at the garret studio in which they were holding their conversation. "I won't remain here long if my name once..."

The demon snorted. "Twattle! Just because a man is potentially a great poet doesn't mean his verse will ever be written, or, even if it is, that it will be received with the acclaim to which it is entitled."

"I...I don't believe I follow you." Mephistopheles flicked a hand impatiently. "Take your outstanding poets of the Romantic Period—Byron, Shelley, Keats. All three had the er...breaks; none of them ever had to worry about their livelihood. Byron was *Lord Byron*, born with a silver spoon in his mouth; Shelley was a baron; Keats came from a fairly well to do family." The demon took a deep drag on the stogie—his last—noting sadly that it was getting rather short. He hated to think of going back to Pittsburgh for another supply. What a place!

He went on. "How many potentially great poets do you think lived their lives out working in the textile mills of Manchester, while Shelley, Byron and Keats had the leisure and wealth to spend their time spinning rhymes?" He warmed to his subject. "Take Thomas Hood, for example; poverty stricken all his life, he had to expend his energies writing cheap puns in verse form for the London papers. Had he been given the leisure and security of the others, you might be celebrating another name today as the shining light of the Romantic Period."

"Hmmm," the poet said; "it has truthfully been written that the devil is eloquent." He thought it over. "These surroundings *are* somewhat depressing. You really think you could make my work as well known as Shelley's; as Byron's?"

The demon pressed his point. "Even more so! I shall act as your agent, bring your work to the attention of the right persons, direct your efforts, see that they are financially remunerative." He gestured dramatically with the hand that held the now cold stogie. "The whole nation will hear your lyrics!"

The poet was swept away. His voice rang passionately, "I'll do it!"

Mephisopheles beamed and became instantly businesslike. "By a remark-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

able coincidence," he said, "I have a contract right here in my pocket. If you'll just sign on the line at the bottom where I've marked the 'X.'" He brought out a fountain pen, touched it to the other's arm and instantly its transparent barrel was filled with dark red. At the poet's gasp, he said soothingly, but briskly, "Blood, you know—all part of the approved procedure."

The poet shivered delicately. "I loathe business," he said, taking the pen. "So crude really."

"Isn't it though?" said the demon, beaming and rubbing his hands together with satisfaction.

TWENTY years had passed and the poet sat at his ease in his Manhattan penthouse, a breather glass of rare Metaxa in his left hand, a pad before him on which he ocasionally jotted down a line or two between sips and sniffs of the Greek brandy. An invisible phonograph was playing De Falla's *Nights In the Gardens of Spain* so softly you had to listen with care to make it out. On the walls were several Van Goghs; the poet had become weary of the Gauguins the week before and had had them removed.

A butler in livery entered unobtrusively, and the poet looked up in irritation. "Yes, Granville?" he sighed. "Must these interruptions be endless?"

"I beg your pardon, sir," Granville said, "but your business manager, Mr. Nicholas Mephisto, is here."

The poet ran a limpid hand through his now graying locks. "Oh, I'll receive him, I suppose. I simply loathe business."

Nick Mephisto bustled in, a briefcase in one hand, the other outthrust to be shaken. "You've done it again, old man!" he burpled enthusiastically around the stogie clutched in his teeth. He breathed out a gust of the wrath of Pittsburgh, setting the poet to coughing.

"A smash hit with J. B.;" the business manager went on, "he's really nuts about it."

The poet shook the outstretched hand limply. "He is?" he shrugged. "I supposed he would be. It was brilliantly conceived, of course."

"I'll say," Nick crowed, transported. "In a month, every man, woman and child in the country will be hearing it a dozen times a day." He lifted his eyes to the ceiling ecstatically and recited:

Colossal Corn, Colossal Corn,
Pop and eat Colossal Cornnnnnn.
At home, at parties, movies too,
Colossal Corn is good for Youuuu!

He gave a deep sigh of satisfaction. "It'll be your greatest triumph since you wrote the lyrics to *The Music Goes Up and Down.*"

"Oh, come now," the poet said deprecatingly.

Nick gestured with enthusiasm. "I really mean it. Old J. B. is going to have it on every network in the country, twenty times a day. He's trying to get Bing, Frankie, Perry, Dinah—" Nick rubbed his hands together with satisfaction.

He took the stogie from his mouth and pointed it at the poet, emphatically. "I thought we were going places when I had you do the lyrics to *Three Little Whalesies, Cowsie Hay and Calvies Milk,* and *The Music Goes Up and Down,* and, to tell you the truth, I got a lot of favorable comment from the home office as a result of them. But these singing commericals, brother..."

The poet took a gentle sip of the Metaxa and frowned lightly. "Ah... Nick," he murmured, "there was one thing I wanted to ask you about. That, er...contract we signed some

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

time ago. It seems to me. . ."

His business manager held up a hand, hastily. "Now don't you worry about that, old man. As a matter of fact I was talking it over with the boys higher up just the other day and they figured it would be best if we just extended that contract—indefinitely."

The poet gave a gentle sigh of relief and inhaled deeply the bouquet of the ancient brandy. "I don't believe I quite understand," he sighed. "Of course, I'm quite satisfied, but. . ."

Nick removed his stogie from his lips and looked at the tip of it with satisfaction. "Very simple, old man; they figured more good is being done the cause by your remaining here and keeping up the fine work."

THE END

ATOMIC SUBMARINE

★ By A. T. KEDZIE ★

TWO STEPS are about to be taken in the use of atomic energy, steps which will finally put this magnificent power agent into some use besides explosive bombs. The Atomic Energy Commission has started work on the installation of an "atomic engine" to be located at Arco Idaho and to serve as aprototype for an engine eventually to be installed in a submarine—and possibly a surface ship.

Considering that atomic energy is now quite a few years old, this is the most encouraging sign to be found now. It finally means that atomic energy is coming out of that strict shell of secrecy which has surrounded it since its conception.

No details are being released of course. The "atomic engines" are called just that and nothing more. But it is easy to draw a mental picture of how the new machine must operate. From what we know of conventional atomic energy developments, these engines will be little more than compact, shielded piles whose function will be to generate heat. Of course here there is a tremendous amount of heat available. This heat energy will be used to boil water and provide steam to drive some sort of electric generator or steam turbine combination.

As soon as test-stand arrangements of the new engine show how effective it will be, the device will be installed in a submarine. The choice of a submarine is obvious. Such an engine will give the undersea craft almost an unlimited range. In addition service requirements should be nil.

Details of design such as the shielding to protect crew members from radiation and the disposal of atomic wastes have not been explained. However it is evident that some way has been found to avoid the use of radiation shields consisting of ten feet of concrete and a foot of lead.

That fact that atomic energy is coming out from behind its wall of ultra-secrecy is satisfying indeed. Perhaps at last it will be used in a truly constructive way. After all there is very little difference between the power plant required to drive a submarine and the power plant of a city. One can be built as easily as the other. Unquestionably electric generation of power by atomic energy is on the way at last—what hath Man wrought?. . .

FACTORY ON WHEELS

★ By CHARLES RECOUR ★

THE SIGNS are here already. And belief in the future confirms them. Future food industries will deliver practically directly from the fields to the consumer! We can't peer ahead very far, but we can see the general trends of things. Food processing is one of our most important industries. We have to eat, don't we? And we can see clearly the shape of things to come. The ultimate revolution in our agricultural industry is slowly and surely coming about.

This much we see today: first and foremost, the farm of today is becoming a wilderness of machinery. And the process is accelerating. It's hard to find a place nowadays without more gadgetry and mechanism than you find in the average city home. And it's machinery with muscle! Electricity and gasoline really do the work.

So much for the present. The future tells us that we're going to see the time when gigantic machines, consisting literal-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ly of miniature factories on wheels, are going to plow through the fields, picking the crop, cleaning and sorting and processing it in their capacious interiors, and then ejecting it completely canned or packaged, and ready to go to the consumer!

That sound like fantasy? It isn't. One present manufacturer has even gone so far as to use a national advertisement depicting this very condition. The advertisement shows a huge tractor-like machine the size of a couple of houses. It is lavishly equipped with automatic devices and it rolls along through the tall stalks of corn on huge rubber-shod caterpillar treads, gobbling up insatiably, vast amounts of corn, shucking it, stripping it, sterilizing it, cooking it, and canning it, on one vast built-in assembly line!

The advertiser wasn't trying to humorous. He knows that is the state of affairs to come. Since power has replaced muscle and since consumption demands are so tremendous everything in the food industries points toward the ultimate in mechanizing.

The farmer of the future will be essentially a skilled technician of the first order—almost a scientist. From the dusting of his crops by helicopter (plenty of which is done right now) to the packaging of his products and the leveling of his fields, he will be producing at an incredibly greater rate and more efficiently.

With your mind's eye, glance into the future and visualize the sleepy summer afternoons in Iowa, no sound disturbing the stillness except the quiet whisper of electric motors and slup of rubber treads as the tractor-harvester-factory rolls over the fields. And the "farmer" leans back in his air-conditioned home, watching the afternoon game on the three-dimensional video. It's on its way!

HOBBY OF THE FUTURE

★ By SANDY MILLER ★

PRESENT-DAY AMERICANS indulge in every hobby or extra-curricular activity conceivable, from stamp collecting to home foundry work. Judging from this it is possible to note certain trends and to get some idea of what sort of hobbies will captivate the Americans of the future. There are two easily recognizable trends which stand far and away above the other hobbies both in numbers of practicioners and in the difficulty and quality of the work. These two are home shopwork—this includes wood and metal working and almost every technique which makes or constructs something—and amateur scientific hobbies.

The magnitude of the former is shown by the vast number of popular scientific magazines and the enormous amounts of tools and equipment which are sold each year. And it is also a fact that these figures are increasing. Almost every person in the country wants to make or build things. This is a healthy sign, and it may be indicative of more than simply a hobby—it may be the basis of a future economy, as some scientists have predicted, an economy in which small units will be the major ones, in which small communities and societies will be entirely self-sufficient almost like the Utopias of old.

The rapid burgeoning of the scientific hobbies, like amateur telescope making, amateur radio and television activity, minerology, chemistry and so on, hold infinite promise. In these forms of hobbies it is often impossible to draw the line between the professional and the amateur. An excellent case in fact is in amateur radio, which as long as twenty or thirty years ago was experimenting with television and which predicted the use of the cathode ray oscilloscope for that esoteric purpose.

As the future brings more and more leisure time, men will have to turn to hobbies and recreations for personal satisfaction. The arts, music, sculpture, painting, writing and so on will always have a great following. The scientific hobbies will be as rich. With tools and equipment so cheap and so available as they are now, in the future, they will be even more so, and it may be possible for the interested amateur to have his own cyclotron or betatron! Already amateur atomic physicists are playing with Geiger counters and Wilson Cloud Chambers with all the aplomb and *savoir faire* of Oppenheimer himself!

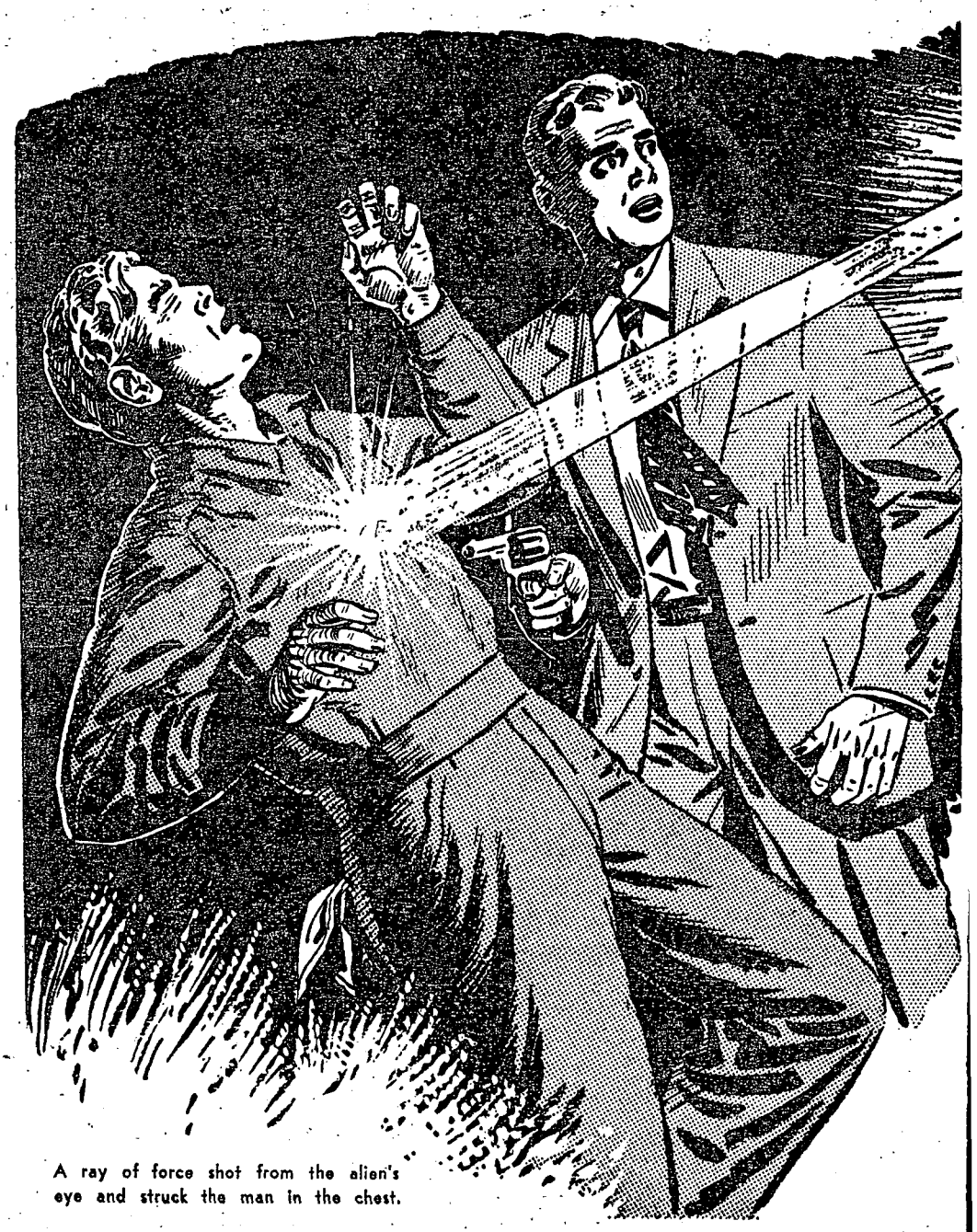
You can't set limitations on the future. The time will come when it will be impossible to distinguish between the hobbyist and the professional. And there is no reason to. There was a time during the Renaissance when the well educated man could do almost anything. Then came the age of specialization and ignorance. Now it appears as if the pendulum is swinging back again, and once more it is possible for a man to know a good deal about everything and a helluva lot about one specific thing.

The future is rife with promise for the man who shows an interest in know-how and creativeness in any form. The citizen of "then" will be a better man in all respects than a citizen of "now"...

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

EARTHBOUND . . .

By Alfred Coppel



A ray of force shot from the alien's eye and struck the man in the chest.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

It was Pete Marley's job to catch the saboteur on the rocket project. But can you capture something you can't see?

THE DESERT sun burned through the windows, etching bright squares on the floor and bathing the green walls in reflected radiance. It was hot, and the soft hum of the air conditioner was a somnolent sound in the Security Office. Outside, the buildings of the Project Station, shimmery in the heat, squatted in the dark pools of their own shade. In the far distance, the three empty launching racks limned themselves accusingly against the brassy sky.

Pete Marley looked up as his secretary entered and seated herself across from him, pad and pencil poised. He rummaged in the litter of papers on his desk and found the manila marked: *Ranheil, C. M.*

He extracted a sheet from the envelope, fingering it nervously. The information was all there, amazingly. And like the purloined letter, it had been ignored because it was obvious. That hurt Pete where he lived. But at least he had it *now*. Before the next launching.

Ever since the last crash, Pete had been digging. Sifting and screening, narrowing the search. Until now only Ranheil remained under scrutiny. And Ranheil was *it*.

That was bad enough in itself, Marley thought bleakly. The knowledge

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

that all the security work—the oaths, the checks and examinations and investigations—had failed to keep a saboteur out of the Project. But there was more. How much more to it, he could only guess—and his guess frightened him.

He looked again at Ranheil's dossier. The oddly patterned whorls on the fingerprints, the peculiar encephalograph curve. The glossy I. D. photograph stared back at him from amid that welter of personal data. Marley was chilled by its alienage. The fine, almost delicate bone structure. The almond eyes half hidden by the tinted lenses. The phrase was in his mind—stuck there, like a tiny sliver of ice. The phrase was: *Not human*. . .

Marley shifted uneasily in his chair. He would have to lay his findings before Dr. Hartmann, of course. His personal dislike for the Project Director could not be allowed to endanger the next launching. Hartmann would enjoy making the Security Director squirm, no doubt. He had a low opinion of "security" anyway, and this business wouldn't make Pete Marley look good. Heads would roll. And not Hartmann's, either.

Marley grimaced. Hartmann was repellent, but he had a right to the facts as Pete saw them. Three moonshots had failed because of sabotage. And Ranheil wasn't human—

They'll think I've had too much sun, Pete thought bleakly. Martians in New Mexico. Orson Welles stuff!

HILDY WAS, waiting patiently, her pencil poised above the notepad. A small golden girl. The sun struck her taffy colored hair and lightly freckled face. There were tiny beads of perspiration on her forehead and her upper lip. Her dress clung damply to her body. There was a golden fuzz on her bare legs. Pete gnawed his lower lip. He'd never paid much attention to Hildy. She was pretty ordinary. Just—human. A person. Nothing like Ranheil. In spite of himself, Marley shivered. He felt quite suddenly like something under a microscope and he didn't like it. Vague fear and resentment crowded up into his throat.

He gathered up Ranheil's file and got to his feet. "Never mind, Hildy," he said, "We'll do the report later."

"All right, sir."

"If anyone calls, tell them I've gone over to see Dr. Hartmann."

"Yes, Mr. Marley."

"I'll be back about sixteen hundred."

"Lieutenant Bishop will be here at fifteen thirty," Hildy said.

Bishop. The first pilot for the next moonshot. Marley wondered vaguely about the morale problem among the Air Force youngsters waiting to take the next rocket up. The three crashes couldn't be good for them. He had better talk to Bishop and keep his finger on the pulse of the second-stage personnel. That was all part of Security. Scared pilots were bad risks.

"Have him wait for me, Hildy."

He gathered up his papers and stepped out into the broiling sun, a sense of terrible urgency driving him across the shimmering square toward the Administration Building and Director Hartmann's office.

MARLEY'S interview with Dr. Hartmann left him shaky and spent. When he left the Director's office, his hand trembled with a mixture of mortification and concern.

He tried to organize his thoughts for the next move—and found himself unsure that there was one.

"You surprise me, Mister Marley," Hartmann had said coldly, "I had

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not expected such imagination in a policeman."

"If you'll examine these papers, Dr. Hartmann—"

Hartmann, a huge bulk behind his neatly ordered desk, huge and shiny and somehow reptilian, had cut him off sharply.

"You have overreached yourself at last, Marley, just as I knew you would. It isn't enough that you have disrupted important work and alienated valuable personnel with your witch-hunting—now you come searching for—" The voice had grown heavy with sarcasm. "—for non-humans. The absurdity of your position should be apparent—even to you."

"One, two and three were all sabotaged, Hartmann. The investigating committee—"

"Not Russian spies this time? Or fellow-travelers? Or poor loyalty risks?" Grating, heavy-handed irony. "Of course not. This time it is to be Martians!"

"I didn't say that."

"Just what, exactly, did you say?"

"Simply that—that I have evidence that indicates there might be doubt concerning Ranheil's — humanity," Marley had finished unsteadily. Now it seemed that his certainty and urgency was evaporating under Hartmann's scorn. He felt ridiculous as he spoke the words.

"I think," Dr. Hartmann had said coldly, "That you have had too much, Marley. You need a change of scenery. I'll take it up with Washington in the morning. In the meantime—" And here the tone of command was unmistakable. "Do nothing more about this insane notion of yours. Ranheil is a valuable technician. I do not want him victimized. Is that clear?"

It was clear enough, Pete thought as he recrossed the square toward his office, clear enough that Hartmann thought he was a whack—and one that he would be very glad to be rid of. Marley had no illusions about how his theory of the moonshots' sabotage would be taken in official Washington. He could remember the laughter that greeted reports of flying saucers. The very least he could hope for would be dismissal.

PETE MARLEY received his second blow when young Bishop told him the launching of shot number four was scheduled for 0300 of the next day. Hartmann hadn't mentioned it to him at all. Pete frowned. So he was already on the outside looking in. That's what happened to imaginative policemen, he told himself. He should have kept his mouth shut.

When Bishop had gone, Pete asked Hildy to locate Ranheil for him. Then he went to his quarters and rummaged through his locker. He found the Luger and checked the clip. It was loaded, all right. The clock on his dresser said 1630.

The telephone rang. It was Hildy.

"I couldn't locate Mr. Ranheil," she said, "The lab people said he might be at number four launching site. Do you want me to try there?"

"No, Hildy. Just get me a jeep from the motor pool. Tell them to have it at the office by 1730."

From here on in, Pete thought bleakly, he was acting without official sanction. If Hartmann found out it would mean arrest, but he had to risk it.

Ranheil at the launching site. Another piece of the mosaic fell into place. Ranheil had been right in the middle of missile research for how long now? Six years, the record showed. Since early 1950. He had a quiet reputation for excellence—even brilliance in rocket development. There were at least four components in the moon-rockets that he had developed personally and at his own expense.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The investigating committee had stated very clearly that the sabotaged parts of the crashed rockets had *not* been the parts made by Ranheil. Alien or not, Pete thought grimly, a criminal is likely to work in a pattern. He figured he had Ranheil's pattern established.

Question. Where did Ranheil come from? The thought was a frightening one. Not human. Not of earth? It didn't necessarily follow. But the preoccupation with missile research seemed to indicate that Ranheil had come from—where? And how? The why of it seemed clear to Marley now. Something, somewhere wanted men earth-bound. Permanently. "I think we're property," Fort had said long ago. Part of the pattern? Pete Marley looked at his hands. They were trembling...

THE LIGHTS of Marley's jeep picked up the first checkpoint on the rutted road to number four site. A white-helmeted MP flagged him down and inspected his ID Card in the tiny glare of a pocket-flash. Satisfied, he stepped back and motioned Marley through the roadblock.

"Has Mr. Ranheil been through here tonight, Corporal?"

The MP consulted his clip-board. "Yes, sir. Came through about 1630."

"Thank you, Corporal." Marley put the jeep into gear and moved off down the narrow road. The Luger felt heavy in his pocket.

Overhead, the desert stars seemed unnaturally bright. Over the crest of the low hills to the east, a crescent moon was rising, its dark sphere blotting out the starfields. Cacti and joshua trees crouched grotesquely in the starlight, like half-formed dreams. The headlights of the jeep were an island of reality in a fey landscape.

Marley thought of Hartmann and his lips pursed distastefully. He remembered the scene in the Director's office with a mixture of shame and revulsion. He should have spoken up more. He should have made Hartmann understand. Instead he had let the man beat him down with scorn and sarcasm. It was no wonder, Marley thought grudgingly, that Hartmann had been made Project Director. No one stood up to Hartmann very long—or very well.

Pete looked back along the dark road fearfully. If Hartmann should find out where he was and what he was planning—

He didn't want to think about that.

The dark spire of number four was topping a low ridge as Marley pulled away from the second check-point. The lattice of the launching rack made a black pattern against the night sky. As he drew nearer, the reflected glow of flood-lights bathed the lower part of the spaceship's hull. A single light shone through the open valve near the needle-sharp prow, some eighty feet above the clustered technicians on the circular ramp.

Marley parked his jeep and mingled with the men at the base of the craft. He asked for Ranheil. Someone pointed to the open valve. Marley nodded and stepped onto the lift. As the platform drew level with the open lock, he saw Ranheil. He was crouched over the control panel, a section of which had been removed. It lay on the deck at his feet, trailing wires among a litter of tools.

Marley stepped into the control room. Ranheil turned to look into the muzzle of the Luger. An expression of fearful incredulity spread over the delicate features.

"Don't talk," Marley said softly, "Come with me."

Ranheil seemed weak with terror. He nodded soundlessly. Marley led

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

him onto the lift, keeping his pistol concealed, but pressed against Ranheil's back.

"That jeep, Ranheil. Walk slowly. Do not attract attention," Marley said. He spoke calmly, but his heart was pounding and his mouth was dry. What, he thought, if I am mistaken?

He started the motor and backed the jeep carefully out of the parking area. Slowly, deliberately, he drove through the check-point and out into the darkness of the desert. The moon was halfway to the zenith now, spreading a pale and ghostly light over the rolling dunes and dry wadis.

Ranheil spoke for the first time. He spoke in a voice thick with fear. It was a question, but spoken in a liquid gush of alien polysyllables. *Alien . . .!*

MARLEY DID not reply. Instead, he turned off the main road and into a dry wash. When he had driven a few hundred feet he stopped the jeep and switched off the lights and motor. "Get out, Ranheil," he said.

Again that pleading question in a fluid foreign tongue. Ranheil's eyes were pale and wide in the faint moonlight. Marley could feel the other's terror. It was like a tangible aura in the night.

Marley took Ranheil by the wrist and swung him around, shoving up on his twisted arm. Ranheil moaned with pain and fear.

"Now talk!" Marley gritted, "Who are you?"

The other seemed struck dumb. "You—you do not know me?" He twisted his head around so that his face was close to Marley's. There was a look of mixed hope and disbelief in the almond-shaped eyes. "You are not—" The last word was a slurred alien sound.

"Talk, I said!" Marley said viciously.

"You are not the *Overlord!* Gods! There is hope!" Ranheil whispered.

"Where did you come from?" Marley demanded.

There was a moment of charged silence. Ranheil looked hard and searchingly into Marley's face. Presently he raised his eyes to the sky. His free hand pointed to the reddish star that hung near the lower horn of the crescent moon. "From there," he said.

The suddenness of his victory and the shocking implications of it sent a tremor through Marley. He released Ranheil and stepped back, the blood roaring in his ears. "Go on," he said shakily.

"I . . . I am what you . . . of earth would call a . . . refugee," Ranheil said, "The Overlords devastated our land and scattered our people—because we sought to reach the stars." His voice gained in resonance as he went on. "I stowed away on one of the ships of the Overlords and came here. In my own land, among my own people I was a leader in the rush for the stars. Now my people are gone, and I have come here—to help you, my brothers," he finished simply.

Pete Marley sank back on the fender of the jeep. This, he told himself was all a dream. It was insanity. It was madness. "Are you saying that there is another race in space?" he asked hoarsely, "A race of . . . Overlords . . . that mean to keep *us* earthbound?"

There was a faint whirring sound behind him, and a pale blue light. The radiance bathed Ranheil's face and Marley saw panic contort him like a marionette. Before Marley's horrified eyes Ranheil collapsed to the sand, grotesquely, hideously.

A voice said: "A little knowledge

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

is a dangerous thing, Mister Marley."

Marley felt weak. His legs refused to support him. An enervating lassitude swept over him; he sank to the sand in front of the jeep, unable to move. He could see that his body was glowing faintly with a weirdly blue radiance.

There was a movement. Above him stood a god-like figure, naked but for a belt of metallic mesh around its waist. The creature was sexless, huge, reptilian. Terror and nausea surged in Marley, but he was helpless to break his paralysis. The creature's face—

Hartmann!

"Do you imagine that the stars are for such as you?" The god...Hartmann...laughed. The radiance grew brighter, crackling and dancing across the sand toward Ranheil. It touched him. He twitched once or twice and was still. Marley knew he was dead. The blue fire reached again.

As the flames approached, Pete Marley stared up at the desert stars. Suddenly they seemed very far away.

THE SCIENTIFIC FAN

★ By LYNN STANDISH ★

SCIENCE FICTION fandom is a completely commendable organization of people interested in science fiction and fan activity. Also it is about the most vociferous group of hobbyists in the world. But beneath this mask of talkativeness, there exists a large and even more specialized body of individuals who are avid science-fictionists—especially in their reading—but who also have an avocation—genuine amateur scientific work. Very often this group has been stimulated into scientific activity through the very act of reading science fiction.

The "scientific" science-fictionists include many radio hams, amateur astronomers, amateur chemists, homeworkshop enthusiasts—and just plain "amateur scientists". It is certainly easy to see how a person with a scientific bent of mind could be gently eased into an intense interest in science simply through a desire to understand more fully the million and one concepts he encounters in s-f. The result is that often some amazingly interesting scientific activity is engaged in.

We've known these hobbyists to build almost everything, ranging from simple shop projects to ingenious variations of scientific instruments. In particular, one fellow we knew had the audacity to go ahead and build a Wilson Cloud Chamber in order to demonstrate the actual paths of atomic particles to his friends!

Analyzed the project was not quite as fearsome as the name might indicate—"Wilson Cloud Chamber". All it was was a glass flask of the Ehrlenmeyer variety with a rubber bulb on the bottom end. The top of the flask (actually the bottom since it was operated in an inverted position) had a couple of wires embedded in it and a small amount of a uranium compound which emits alpha particles. The flask was filled within a half inch of the top with nigrosine-dyed (black) water and gently compression and expansion of the rubber bulb created the actual cloud effect. A two volt potential from an ordinary radio power supply swept the chamber of interfering ions just before usage, and a strong tin-can-100 watt bulb arrangement provided the powerful illumination.

It was amazing to see the demonstration of the real paths of these minute atomic particles. The only reason that such an apparatus is rarely seen is because too few people are aware of the relative simplicity of constructing that sort of thing. The fellow who built the cloud chamber recalled having seen mention and description for the first time in his life in an old issue of *Amazing Stories*.

This one example could be multiplied a hundred-fold. Most of these amateur scientists never expect to do anything Earth-shaking or particularly startling to the world of science. But their efforts enable them to understand our modern complex world much better. And in addition when they feel that some scientific law has been violated, very often they're the loudest in their cries of protest to the Readers' Section!

It's pretty hard for a science-fiction author to put one over on a man who's watched a Wilson Cloud Chamber operate. Authors, take heed!

★ ★ ★

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

HOT-SPOT MACHINING

★ By RAMSEY SINCLAIR ★

METAL-WORKING is a measure of the country's advancement. Here in the U.S. we're just about ahead of everybody. This bodes well for the future. Metals and metal-working make for progress. Here, Can Do!

Because metal working is primarily metal cutting on a lathe or milling machine, methods of speeding this operation up are extremely important to each and everyone of us. After all nine-tenths of the cost of those shiny new gadgets like cars and appliances and what have you, that we Americans are so fond of, come from removing metal. Do it faster and more easily and you make things cheaper—shoving up the standard of living.

Everyone's familiar with the super tough and hard alloys like boron and tungsten carbide which enable machines to cut through heavy steel like a knife through butter. But even these aren't enough. Some clever genius analyzed the problem and has popped up with a method that may revolutionize the whole industry. Certainly we'll see a lot of it in the near future.

He reasoned this way. A metal's toughness and hardness is what slows down its cutting. The tool heats, loses its edge and becomes dull. If metals like the all-important steels were soft like brass or copper, it'd be a cinch to do high production with them. All right, let's make them soft. How?

The answer turns out to be so simple, it's hard to believe it wasn't thought of before. Just take and heat the metal! In other words, cut it while it's hot!

So by playing a flame ahead of the cutting tool and by keeping the cutting tool lubricated and cooled with a flow of special liquid the heated steel crumbles before its attack like cheese under the incisors of a rat. The end result is that production is multiplied a thousand times.

There are problems to be solved yet—but they're only a matter of time. Hot-spot machining as it's called, is here to stay. We—that is most of us—may never actually see such a machine using the process in operation, but we'll feel its effects in reduced prices.

And as always, new production techniques invariably generate new items. Maybe that helicopter will be brought into the range of the average person's pocketbook yet—we'll bet our shirts that it will!

★ ★ ★

IDIOT STICK

★ By J. R. MARKS ★

CURRENT during the last war—and probably today, was an expression of disdain describing the activities of a pick and shovel man— "he is working with an idiot stick!" The implication is of course such simple tools require no more talent to use than an idiot possesses. This is not necessarily so; often real skill is shown even with such easy-to-handle devices. What is more important is the state of being of the person who makes the remark; it's as if to say, "...but I'm wonderful..."

The truth of the matter is however, that none of us can be particularly proud of our so-called mechanical or technical ability. For gradually, creepingly, science has been reducing the technique of thinking. In fact, it can almost be said that good, hard thinking, is a rarity. Acquiring skills is another matter; there is no relation between the two.

Just look around you. Everything that you can think of is simple and easy to use. No effort, no skill, no brainpower is required. And as time goes on science promises us more and more of this "push-button" ease! If the trend keeps on, we'll be reduced truly to a race of sub-morons and super-idiots, capable of doing nothing more than pushing a button or reading an instruction.

This theme is grist for the mill of a science-fictionist. Imagine a world in which human beings have become so reduced in mental by the sheer atrophy of their thinking and learning faculties. It's not as fantastic as that. Note how, with the passage of time, certain groups in education, for example, want to cut out this subject or that, because it is too hard for their little darlings to learn. Not so many years ago there was a terrifying trend to eliminate mathematics from the schools, mathematics above common arithmetic because pupils had so much trouble with it!

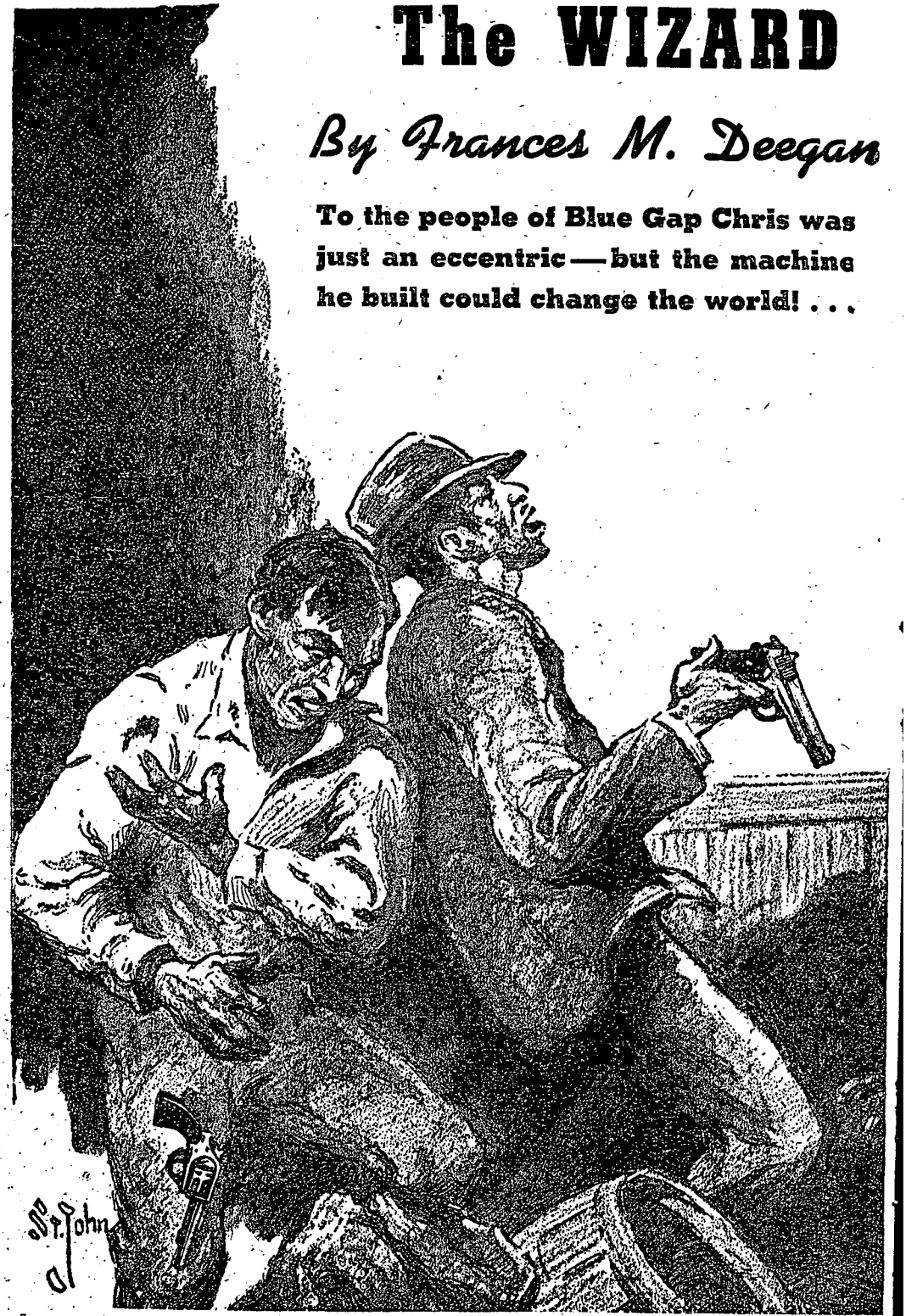
Now imagine a science fictioneer carrying this to the ultimate! There is good plot material there for a fine story, even though the theme has been skirted and even touched fairly well more than once. Any potential science fiction authors might give the idea consideration. It could provide a gem. But like the great American novel, it'll probably be still floating around for some time to come.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The WIZARD

By Frances M. Deegan

To the people of Blue Gap Chris was just an eccentric—but the machine he built could change the world! . . .



PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

# of BLUE GAP

IT WAS just another morning. The sun was shining like forty million dollars. All kinds of birds were chanting and warbling. The hills were young with infant buds and tender green shoots. I felt like the bottom of a dry well on a black night.

"Just another morning," I said to myself. "The hell with it."

I had slept in the car. I hadn't eaten since day before yesterday. Maybe I should have chewed some buds and green shoots. Maybe I should have shot a bird. Pioneering on this road to nowhere.

I knew the road wasn't going anywhere. That's why I took it. I had already left the highway two days before. I was traveling a side road when I saw this narrow trail meandering

Dropping their guns, the two killers gave startled cries of pain and staggered backward...

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

off to the hills.

"That's for me," I said. "The deep hills for me."

I was wanted by the FBI. I was wanted by state, county and city police. And I was specially wanted by Senator Spendwater's thugs. I should have killed the bum. I should have exterminated the brass-mouthed buzzard. I should have shut him up.

"Go on you dizzy road. I can go anywhere you can."

I talked to the road. I told it what a damn fool it was, just wandering around. The road talked back with jolts and bumps. I'd be lucky if I had any springs left. I'd be lucky if the engine didn't bounce through the hood and knock my head off. Once in a while there was a cabin, a good ways back. I didn't stop. Me and the road. We kept on fighting it out. I slept in the car. When it was morning we took up the argument again.

The hills were closing in behind us and all around us. They shut off the forty million dollar sun. We kept going higher and the morning light was unreal. A reflection from a hidden mirror. We went through a stand of pine that seemed to be under water in the strange light. There was a dark hollow on the other side. There was a settlement there in the shadows. It was by no means a town. Five dilapidated buildings straggled along the left side of the road. One story frame shacks that had been there since the second year of the Revolution. The American Revolution.

There was a dusty, brown cur dog sitting in the road. Scratching himself half-heartedly. He let his leg slide back in the dust and sat there in a sprawl, panting wearily. Or maybe he was laughing at me. The whole place looked like the end of something. I felt like the end of something. I got out of the car and was surprised at how stiff I was. There was a gas pump in front of the second building. I went up on the broken porch. The door was open and I could see it was a store. I went in. It was dark inside and the dim clutter was heavy with old smells of food and kerosene and home brew and potato sacks. A big, spotted cat paced out of the shadows and looked me over.

I said: "Hello, puss." The cat came over and rubbed some hairs off on my pants legs.

Something stirred and creaked at the rear, and a heavy voice rumbled: "Git on outa here, Useless! Go on, git!"

I said: "What?" And the cat arched her back and hissed.

Something the size of a baseball whizzed past me. It must have gone out the door. I didn't hear it land.

"Three for a dime," I said. "Go on. Try it again you buzzard, and I'll break your arm. Who you think you're firing at?"

"That dawg," the heavy voice grumbled. "Got the whole outdoors, an' he's alla time comin' in here to cock a leg. You was in the way."

"You want to call your shots, Joe."

"You ain't got no business here either. You lost?"

"No." How could I be lost when I didn't know where I was going? "No. I'm not lost. Just riding around."

"You won't git nowheres ridin' this direction. Where ye bound fer?"

"No place special. Just taking a holiday."

"H'mph! Way to take a holiday is settin' down, not chasing' all over the country like you was in a hurry to break your neck."

"That's what I'm looking for. A place to set—sit down. This looks like a nice, quiet place. What's the name of it?"

"Name's Blue Gap. But it ain't no place fer you. Ain't always quiet

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

neither. When that crazy Chris gits to cuttin' up with his haunts and bogles. . ."

A MATCH rasped and moved to a flaring wick. The glass chimney was replaced and the wick turned down to an even flame. I saw a fat man sitting on an old couch. His heavy jowled face looked morose and resigned in the lamplight. His pouched eyes were hidden in deep folds.

He sighed gustily, and said: "What you want, Annabelle?"

I thought he was talking to the cat and I looked around. I never had anything hit me with such a wallop.

She was standing just at the edge of the lamplight. Maybe the soft glow did do something for her. But most of it was what she came in with. It wouldn't matter where she stood. She'd still have it, and I don't mean just her looks. She had thick, tawny hair and it was a little tangled, as if she had been running in the wind. It rippled down around her shoulders and moved with her breathing. She had the appearance of something wild and untouched which had stopped suddenly in mid-flight. Her round young face had a breathless look, the full lips parted, the tip-tilted nose lifted, the wide eyes glistening. Her eyes changed color and darkened as we looked at each other. She paid no attention to the fat man's question.

I couldn't say anything. I was afraid to. I was afraid she'd answer and, you know, spoil the whole effect with an off-key voice. But she didn't. Her voice was a soft, wondering murmur.

She said: "Are you Peter?"

"Yes."

"I knew you'd come." She smiled like a delighted child. I wanted to touch her. She moved past me, and the magnetism pulled me around. It was a joy to watch her walk.

"Zig," she said to the fat man, "I came after a left hind hoof for a spotted mare. I'll get it."

Zig grunted and stayed where he was, and Annabelle vanished in the shadows.

"What did she say?"

"Hoofs. I keep stuff like that fer Chris. He's crazy. You named Peter?"

"Yes. Peter—" I caught myself. I wasn't going to use that name.

But I hadn't! Annabelle had said it. But she couldn't possibly know who I was. The musty, cluttered store was suddenly stifling. The cat ran soundlessly across the floor and disappeared at the back where Annabelle had gone. I was afraid she wouldn't come back. I took a step toward the shadows.

"Wait up," Zig rumbled. "You look like you been in a fight. An' you're packin' a gun."

"That's right."

"Anybody after ye?"

"Maybe."

"The law?"

"You scared of the law?"

"Hell, no. I am the law. Deputy Sher'ff." He wheezed like an old engine getting up steam. "I don't wanta have to go to all the damn bother of arrestin' you, which I got to do if you got the law on your tail."

"I never cared for over-enthusiastic lawmen myself. Let's just say you don't know anything about me. Or what I've got on my tail—if anything."

"Suits me." His thick paw came up holding a long frontier model Colt. "This thing woulda went off if you made any move fer that pepper box you got under your arm. Makes a hell of a noise."

"I'll bet. Now that we decided not to shoot it out, where can I find a place to stay?"

"You won't like it here."

"That's your opinion." I wanted

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to laugh at him.

Annabelle came back, and I did laugh. Like a crazy fool. She laughed, too. Both of us, laughing. No reason. We were laughing at the world. We were laughing at everybody and everything. What did we care?

She said: "You better come on home with me." I went.

You never saw such a place—that house. It was about half a mile from the shacks, from Blue Gap. It was built on the side of the mountain with a steep slope behind and nothing but air and space in front. It was built out of stone and timber, and it had everything. Like an old time castle. Towers, balconies, big doors and little doors. It was falling apart. It was rotten with age and neglect. It was like a hum with elegant manners. But I didn't laugh.

WE HAD quit laughing long before I saw the house. That thing between us was overpowering, and sobering. It was exciting just to walk beside her. Sometimes my hand brushed her dress. It was a faded blue sack with something tied around the middle, but on her...

She walked with both hands cupped around that damned hoof, holding it against her breast. I wanted to knock it out of her hands. She talked with that soft, eager voice. Like a serious child.

"Us Delanceys, we been here a long while. Now there's just Ma and Pa and me—and Cousin Bolt. I'm pledged to Cousin Bolt, but I don't want for you to let him have me."

"I won't," I said. I was sure of that.

"Chris told me."

"Told you what?"

"About you."

"He doesn't know me."

"He knows."

"I'll have to talk to him. Where is he? Around here someplace?"

"In the house. He's been there a long while."

"But he's not a Delancey."

"Oh, no. He's a wizard. He came over the mountain."

There was a ragged path around one wing of the busted castle. I followed Annabelle to a big, stone-paved kitchen at the rear. The place must have been two hundred years old. At least. There was a monster fireplace, black with age. The huge beams in the ceiling were black, seasoned with a couple centuries of lusty cooking. There was a ten foot table, worn deep in spots, bleached with scrubbing. There were copper and iron pots, and antique cupboards big enough to supply an army. There was a big, hulking brute standing in the middle of all this.

He was standing upright. He should have been down on all fours. He wasn't two hundred years old. No. Two hundred thousand would have been more like it. He was a throwback, and he went all the way back.

Annabelle stopped and I felt my hackles rising. She took a step backward. I reached for her. It was like touching a live wire. The shock of it ran through me and shook my brain. I had an insane urge to shoot this thing down. Destroy it. Wipe it out.

"It's Cousin Bolt," Annabelle said.

I knew it was. My own rage at sight of him told me that. Mean little brute eyes were jumping around in his head. Taking it all in. The way we stood. My hand on her arm.

"I'm gonna whup you, Annabelle." He droned the words. No expression. A talking animal.

I knew I had to take him. I didn't think I could do it. Not with my bare hands. Not the shape I was in. I took a hell of a beating getting away from the Senator's boys. I'd been traveling for three days, losing sleep, missing

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

meals. I looked at him, and I felt like Methusaleh. With crutches.

A gong sounded. The first round. I almost jumped in. Annabelle was in the way. Fortunately. Anyway it was the wrong gong. Not sharp and clear. It came from somewhere deep in the house and the sound spread in waves. Going on and on, and dying in a whisper. We stood there like that. Like a still from one of those gorilla movies.

A tall woman came into the kitchen. She wore a patched gray dress, and she walked like a queen. Her bony face was taut, her deepset eyes were cold. She belonged here. She looked like everything else. Like the end of something.

"Takin' up with strangers!" she said bitterly. "Ain't you 'shamed?"

"No, Ma. It's Peter. Chris told me he was comin'."

"You're lyin'," Bolt growled. "I'm gonna—"

"I am not lyin', Bolt Delancey! And you better keep your big hands off me. I'll tell Chris. He'll put a spell on you."

The deep toned gong sounded again.

Bolt cringed and looked around. Mrs. Delancey's head was rigid. Only her eyes moved.

"Show him the way, Annabelle," she mouthed coldly. "An' don't let me ketch you dallyin'."

Annabelle stirred against me. "We better go up," she murmured.

WE LEFT the kitchen wing where the family lived. The rest of the house was a crumbling labyrinth of halls and empty rooms. Broken windows had been boarded up. It was dark and musty. Rats or squirrels scampered and rustled through the ruin. It was no place to dally. We went up a stairway with carved banisters. There was a wide hall across the front of the house. Annabelle pried at massive sliding doors with her fingers, and I reached around her to pull them apart. I didn't get them open. Not right away. All that hair. It was alive. It clung to my face. And under my hands all that vibrant young wildness turned.

The doors slid open and there was a lot of light. Something hard and rough was pressing my right ear forward. It was the hoof. She still had it in her hand. I reached up and pulled her arms down.

There was a scrawny little guy standing in the doorway. Looking at us with bright brown bird eyes, his head cocked like a nosey magpie.

"Excuse me," he said. "Yes. Excuse me, but I have been waiting for quite some time."

"Hello, Chris," I said. "I want to talk to you."

"Of course. Of course you do. The proper way would be to come inside. Give me the hoof, Annabelle. Now you run along, my dear. Peter and I don't want to be disturbed by your ...h'm! Come in, Peter. Come in. You've got yourself in a fine fix, haven't you?"

"How do you figure that?"

"Got it on my tele-transit. No, no, Annabelle. You cannot come in now. Go help your mother. She has been complaining again about the way I spoil you."

"I found him," Annabelle said stubbornly.

"Well, yes. You did in a way, but—Dear me, I should have thought of this. I suppose it's going to complicate matters. She is a dear little thing, isn't she, Peter? Would you mind asking her to step outside. Perhaps she'll mind you. We haven't much time. I think you may be followed here, unless we can arrange things."

"All right, baby," I said. "You go downstairs before your mother gets

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

mad, I'll see you." I turned her around and patted her lightly. She didn't like it, but she went. She had a temper under all that sweetness. She twitched away from me and whirled out the door.

"You and your fool talk!" She was like a kitten spitting at a couple of surprised tomcats. "I'll show you!" She went away from there like a streak of lightning headed for large scale destruction.

Chris shook his head and clucked distractedly. He closed the doors and muttered: "I always forget to allow for the unknown quantity."

"That's a new name for it," I said. "But it fits. You don't look crazy to me."

"Oh, but I am. Yes. Completely crazy."

"Cut it out. I'm no hill-billy. What's the set-up here? What's the idea of that hoof routine?"

"Glue. I make it myself."

"Out of a left hind hoof from a spotted mare."

"As a matter of fact this came off a mule." He turned the thing in his hand, peering at it. "You are right about the—er, routine, however. It is quite necessary, you see?"

"No, I don't. Let's quit being polite about it. What do you know about me?"

"I picked you up on the detectograph. When you turned off on that road. I wanted to know why. I used the tele-transit to find out."

"Very simple. Now let's see if you can say it without the double talk."

"I'll do better than that." He gave me a sly look. "I'll show you. Come into the next room."

I took one look at that next room. The conglomeration of junk. I thought, Oh, hell! The guy is crazy after all.

"I'm crazy, you see?" He looked around at me with that sly gleam.

"Quit reading my mind. Let's have the demonstration. And it better be good."

IT WAS. What this guy had was a kind of cosmic peep show. That's right. He could take a peak at anything, anywhere, any time. You talk about television—crude stuff. Primitive. He was crazy, sure. He was so radical, he had been discredited when he was a young professor at the University of— Well, never mind the name. They still think he's crazy, if they remember him at all. He told me all about it. After I saw what he had. I could understand then why he picked this spot. I found out why he picked me, too. He had a little chore for me.

"Now, if you'll just step over here," he said, and began fussing with a contraption that had a long tube pointed out through the open french doors. He turned something on the side of the asbestos covered furnace—that's what it looked like, a cylinder shaped furnace with a pipe leading outdoors. What he turned looked like a valve off an old steam radiator. There was a ragged crazy quilt draped across the back end of the thing. A churning noise started up, inside the furnace. It sounded powerful. I looked around at the accumulated junk. The place looked like the back end of a radio repair shop, with a lot of extras thrown in. I didn't see what I was looking for.

"Where do you get your juice?" I asked. I had a funny feeling I wasn't going to like his answer. I didn't.

"The power? I've tapped the original source. Cosmic force. The stuff that makes the world go round. I never use the amplifier during the day. If the good folk of Blue Gap saw ghosts in broad daylight, they might be alarmed. We'll have to use the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sono-vizor."

"I hope you know what we're doing," I said, and crawled under the crazy quilt with him. I couldn't see much at first, but I got the impression he was twiddling dials and pushing knobs. The churning noise settled into a soft hum. A round plate in the control board began to glow, and the soft humming turned into mumbling. Something was moving on the plate and I had to bend down to see it.

"What the hell!" I said. I was looking at a couple of gals in a fancy bedroom. It looked like they were dressing for a party. But they hadn't got very far. With the dressing, that is.

"No, no. Wrong room," Chris muttered. "Mickey and Doris. Two little friends of your former employer." His hands moved expertly over the board and the gals faded. "You don't know them."

"They weren't very clear. I didn't get a good look."

"It's just as well. Now, don't be surprised at anything you see."

I wasn't surprised. I was sick. I sat on the edge of my bed in the hotel room. I had my coat off and my tie loosened. The phone was ringing. I set the highball glass down on the glass-topped stand. I picked up the phone and the whole thing started happening all over again.

"Hello," I said, and my voice sounded raw. "Yes, this is Pete Grove. No, I haven't got a cold. Yes, I'll be right down."

I put the phone down and got up and put on my coat. Then I took it off again and put on the gun. I buttoned the coat and tightened the tie. I brushed my hair and went out and downstairs. I had been summoned to the presence of the Great Benefactor, that splendid American and man of the people—Senator Baldus K. Spendwater.

The senator had a convention sized suite off the mezzanine. I went past the reception committee like I was in a hurry. I was. The two capable bouncers—the reception committee, just looked at me. In the next room two stenographers were beating hell out of two typewriters. Young Glanzer came out with a handful of corrected copy sheets. Press releases. He was busy. He just glanced at me, and said: "Har, Pete."

I went through two more rooms. Everybody was busy. The door to the sanctum was closed. I hit it with my knuckles.

That Voice said: "Come in, please."

THE SENATOR was tall and lean. What was it that Shakespeare character said? "Methinks yon Cassius hath a lean and hungry look." Methinks the senator had it, too. He was standing beside his desk, at ease, waiting for me.

"Well, Pete," he said kindly. "The boys tell me you are dissatisfied. I thought you were one of my most enthusiastic supporters. I had you marked as one of my most promising young men."

"Promising," I said. "That's a good word. That's all you've been dishing out. You're one of the most promising Presidential candidates the country ever saw. You've been promising everybody everything. It sounds good the way you tell it. A regular con artist. That's you. What a spiel—for the suckers!"

"Pete!" He was a stern father, dealing with the family black sheep. "Don't be insubordinate."

"Yah! Already you start making like a dictator. Insubordination in the ranks. Next comes the purge. But not yet, friend. You haven't moved into that white house yet."

"Pete, what are you talking

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

about?" He looked pained, but patient. Oh, he was good.

"As if you didn't know! We both made a mistake, brother. It was my mistake when I told you about the Guild. About the secret organization spreading all over the country. A citizens' army. Meeting and drilling in secret. I thought you ought to investigate. I thought you ought to expose it. It was your mistake when you told me it might be a good thing! When you told me I ought to join it. I joined it. And then I found out your campaign funds are being used to support it. Sure, I've been a sucker. Just like all the rest. But I can still add two and two. One, two, three, four. I can still count. As soon as you're in the White House, you come right out and give the Guild your official blessing. What a set-up! What a—"

He slapped me. He knew what he was doing. He knew I'd lose my head. I did. I went for him. He yelled and I smashed him in the mouth. He was no slouch. He landed a punch on the side of my head that jarred me. I hit him again and slammed him back against the desk. And then they were on me. The bully boys. The reception committee.

"No shooting!" the senator was squawking. He meant the committee. I didn't have a chance to get my gun. Not then. I used my feet, I used my fists, I used my head—butting like a bull. All I wanted was out. I made it. I got away from them and fell up against a glass fronted bookcase. The glass shattered and stabbed me in the back, but I had my gun out then. I held them off. There was a side door. I knew it was locked. I sidled over there and reached behind to turn the lock. I went out the door fast and ran to the rear of the mezzanine and down the back stairs to the parking lot....

The image on the plate blurred, the glow faded. I felt like I was smothering. Under that crazy quilt. I backed out and blinked at the daylight. I reached for a cigarette. I felt like hell.

"You know," Chris said. "I believe you're right about that man."

"I know I'm right," I said sickly. "But I fouled it up good. I gave him an excuse for more guards. And more publicity. I didn't prove a damn thing. I just made it easier for him." I felt worse now than I had before. Before. All at once I got it. What I had just seen.

"Hey, wait a minute!" I yelped. "You can't do that!"

"No," Chris said sadly, "I can't. Not where anybody would find out about it. In the future, perhaps. But not now. In the future I think cities will be underground, insulated against the tele-transit and—and other devices. Or perhaps men themselves will change into creatures who can be trusted to use the cosmic forces properly. But not yet. Today my tele-transit would be a dangerous engine of destruction if it were turned loose in the world. Men would kill and rob, commit every crime to possess it, and then use it for evil purposes. But I have much hope for the future."

"Can't you tune in the future?"

"Not yet. I'm working on it. A different principle altogether. With the tele-transit I can pick up anything that has already taken place. The other night I had the battle of Waterloo. Out there." He waved a skinny hand at the space and depth outside the french doors.

"You mean you can project this stuff—life size?"

"With the amplifier. Yes. The battles are interesting, but too noisy. I'm afraid folks over there in the next county may hear. They might investigate."

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"I can imagine that. I can just see you explaining that you were running off the battle of Waterloo."

"Yes. It's quite a problem. But I am fairly safe here. So long as they think I am crazy, no one will interfere. Now let's think about your problem."

WE THOUGHT about it. In spite of all his knowledge and power, or maybe because of it, Chris was an innocent babe. I had to explain Senator Spendwater's double personality, his double dealing and double talk. It took a little while, but Chris finally got it, and clucked sadly.

"The type is familiar," he sighed. "Wolf in sheep's clothing. He poses as the friend and benefactor of the people in order to cover his plot to devour them as soon as they give him the power. He ought to be stopped."

"That's what I thought," I said bitterly. "But I messed it up good. Now I'm being hunted down as an assassin for punching the mighty mushmouth in the teeth. I should have killed him."

"No, no. Exterminating the man would not defeat his evil principles. On the contrary, it would promote them. He would be exploited as a martyr by others who will seize upon his ideas and his organization for their own use. You must fight him with his own weapons. Expose him. Use his own acts, public and private, to condemn him. In this case I shall be willing to use the tele-transit in current affairs. You will be allowed to witness the man's most secret activities. You will gather sufficient evidence to prove his true character, and cause his downfall. But—" He paused to fix me with his bright bird eyes. "The source of your information must never be known. Never!"

"I won't give you away, Chris," I said softly. Excitement had me by the throat. I had begun to realize what I could do. "If I have the evidence, I'll know what to do with it. The Senator has some enemies, a little opposition. It's not very strong because he has a powerful organization, trained to go after anyone who dares to oppose him. And no man living has been so Simon-pure that he can afford to let the Senator's trained dogs drag all his secrets out in the open and expose them to the public gaze. Especially since the dogs have a talent for making them look and smell worse than they really are. The Senator had ruined many men, both good and bad, in his rise to power. He has made enemies. They wouldn't listen to me before, because I was one of the Senator's pets; but they will now."

"Yes, but how will you explain—"

"I won't need to explain the source of my information. I was close to the Senator, but nobody knows how close. All I have to do is tip them off. Tell them where and how to look for the evidence. Give them names, dates, places. Facts that nobody has been able to get. Because the Senator's defense is as powerful as his offense. Once they find the evidence for themselves they won't bother to ask me how I knew. They'll be too busy using it to care. You'll be safe, Chris. Giving you away wouldn't help me a bit. Let's get busy."

"One more thing," he said diffidently. "There's a—there's something I'd like you to do for me in return for my help."

"Anything I can, Chris. Believe me. Anything."

"It isn't anything very difficult. Are you married?"

"No." I was startled.

"You will be, I expect. I hope you raise a large family. I want to deposit a—something, with a family who will guard it and hand it on from genera-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tion to generation. It's a manuscript for posterity."

He rummaged around in the junk heap and brought it to me. A large notebook in limp leather cover. I looked inside and saw a lot of outlandish mathematical symbols which had no resemblance to any kind of mathematics I had ever heard of.

"Good Lord, Chris! Nobody can understand this."

"No. Not yet. But some day science will catch up with it, and it will be perfectly clear. I am sure that by the time men are able to understand my theory of cosmic energy, they will also have the wisdom to use it properly."

"You sure you want to trust me with this?"

"Of course I'm sure," he said testily. "You can't possibly use it. And after seeing what my machine can do, you will certainly not destroy it. There is only one thing you can do. Hand it on as a legacy in the hope that one of your remote progeny will have the honor of publishing it."

I was embarrassed. All I could think of saying was an inappropriate wisecrack about my nonexistent progeny. I din't make the crack because Annabelle suddenly filled my mind—with possibilities.

IT WAS late afternoon when I went downstairs. Ma and Pa Delancey were there, and Cousin Bolt. But no Annabelle.

"Where's Annabelle?" I demanded.

They looked at me with stony hostility. Pa Delancey was dull and lifeless. Ma was the boss here.

"I can't do a thing with her since you come," she said bitterly. "Wouldn't do a lick of work all day. Now she's gone off down the road. I'm gonna lock her up, soon as she gits back here."

I started toward the door and Bolt got up.

Not now, I thought. I can't stop for him now!

If Annabelle had gone down the road, she was going to meet two of the Senator's bully boys. If they got her, I was licked.

Chris and I had been so absorbed in the Senator's private life, we forgot the time. Until the radar-like contraption he called his "detectograph" gave a warning buzz. He switched the teletransit to the road, and there they were. Right on my tail, and coming fast. That's how good they were. They were way out in front of the pack that was hunting me down. Allowing for the time lag, figuring that what we saw had already happened, they must be close to Blue Gap by this time...

Bolt shuffled toward me, his big arms swinging. Ma and Pa Delancey sat there calmly. I let him come on until he was almost within reach. His thick arms lifted. His fingers curved. I moved fast. I threw everything I had into that one punch. It landed on his jaw. Solid. It was a solid hit. It was all I had. And he turned around in his tracks as I went past him. Watching me. He didn't even know he'd been hit.

But I knew it. My whole arm was numb. I kept moving away. He was drooling out of a shapeless mouth. He was breathing deep and loud. I kept moving to the side. Turning him around. When I thought he was off balance I hit him with my left, and jumped back. He stumbled and I hit him again. All at once he got it. He was being hit. He was being hurt by something he couldn't get his paws on. All at once he was scared.

"Maw!" he bellowed. "Maw—make him quit!"

I hit him again for luck.

"Nah, don't!" he whined. He put

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

his arms up over his head. Big, they were big enough to crush a man. All he needed was a brain.

"No need for you to be knockin' Bolt around that way," Ma Delancey said. She got up and stood there stiff as a poker. She pointed a rigid arm to the door. "I'll ask you to kindly leave this house."

"He hit me!" Bolt whispered.

Maybe it was funny, but I didn't think so at the time. I ran out the door.

My car was still standing in front of the store. Zig was still sitting on the couch inside.

"Where's Annabelle?" I yelled at him.

"They's another car comin'," he rumbled accusingly.

"If you're pointing that cannon at me, put it down. It's not the law."

"They're after ye."

"That's right. But they're— Look, Zig. I haven't got time to explain it all now. They're wrong guys. Chris can tell you."

"He's crazy."

The cat ran out of the shadows with her tail lifted. Annabelle came after her, scowling at me.

"All day long," she said. "It took you all day long to come after me. I might been clear down to Eden by this time!"

"You can't stay here, baby. You've got to get out of the way."

"Why?"

"Because the men coming here are tough guys. And they're after me. You might get hurt. I don't want anything to happen to you."

SHE SMILED then and walked toward me. She didn't say anything. She walked into my arms. I kissed her. I thought it might be the last time.

"Who'd you say these fellas was?" Zig rumbled loudly.

I heard it then. The car. They were here. I pushed Annabelle toward the shadows at the rear. The car stopped outside. I couldn't get Annabelle loose.

"Baby, let go!" I panted. "I've got to—"

I heard their feet on the porch.

"Whoa!" Zig bellowed. "Wait up, now. Don't be comin' in here with guns!"

I tore Annabelle loose and shoved her. She fell over a box.

They saw me. "Come out easy, you—" one of them said. "And put up your hands. We'll take you back in one piece if you behave."

I didn't move. "You're lying. You don't want to shoot me down in front of witnesses. You want to get me off where nobody can see it."

The second one swore at me and lifted his gun. "You coming out right side up, or do we have to drag out your carcass?"

"You'll have to do your shooting here. I'm not coming out. You boys are on the wrong team. I don't obey anybody but the law."

"Drop your guns!" Zig roared, and they both opened fire as he added: "In the name of the law—"

Zig's cannon roared. I crouched in the shadows and fired.

We got them both. I think it was the surprising blast of Zig's cannon that threw them off. They staggered together and went down. With a barrel of crackers.

Zig grunted and heaved himself off the creaking sofa.

"More damn trouble," he grumbled. "Now you git on outa here, 'fore you bring any more fancy gun slingers up this way."

"I'm going," I said. "Much obliged."

I was in a hurry. And I meant to take Annabelle with me. I was afraid he might stop her. He didn't. He was

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

down on the floor with the dead men, going through their pockets.

I left my car and took theirs. It was faster and much safer.

Annabelle was frightened. "Where we going?" she asked.

"The nearest town, baby. Eden. Is that it?"

"Uh-huh. I guess."

"You show me where to turn off."

She showed me. A cow path. I never would have found it by myself. It was no better and no worse than the crazy road I came in by. But it was a shortcut to civilization. There was a postoffice. I fired my first round of special ammunition by air-mail. Addressed to certain newsmen who would be sure to investigate my inside tips, compare notes, and start the ball rolling. I knew exactly where to place my shots. With men who hated and feared the Senator for various reasons. And I told each of them to contact the others for the complete story of their separate investigations. If they worked together, and worked fast, the Senator would not have time to cover himself against their combined attack. And the element of surprise would be alarming, because none of that inside information could have gotten out through ordinary channels. He wouldn't know where he was going to be hit next.

He didn't wait to find out. He swallowed a cyanide capsule and died like a dog. And his whole flashy organization collapsed. Like a tawdry stage setting where an imitation Caesar had strutted and died.

I didn't waste any time. As soon as the pressure was off I got married. I've got to have a family so I can hand this thing on that Chris left for posterity. It's all that's left now. Chris is gone. The old house is gone. Zig told me when I went after my car. The whole thing crumbled apart and fell into the chasm one night.

"I knowed she was due to go," Zig growled. "I kep' tellin' them Delanceys. But that's all the good it done. They wouldn't leave that old pile for love nor money. The cat misses Annabelle."

"I'll bet."

"What you do with her?"

"Who?"

"Annabelle, you tarnation fool! You think I didn't see you sneakin' her off in that car?"

"You ought to be ashamed of yourself!" I said hotly. "What kind of a lawman are you—letting innocent young girls be snatched right under your nose? Why, you're worse than—Put that cannon down! I married her!"

"This thing woulda went off if you laughed. Instead of gettin' sore. Makes a hell of a noise."

"It does at that," I said soberly. "But I'd hate to have it go off and not hear it."

THE END

CYBERNETIC QUIBBLE

★ By A. MORRIS ★

THIS MAGAZINE has jumped eagerly at every chance it has gotten to bring to you discussions of, and articles on, that precursor of the future, the science of cybernetics. Reading about and studying cybernetics is almost like taking a trip by time machine into the near future: it is a glimpse of "things to come". Consequently when we discover that in the scientific world there is some controversy involving the subject, we're bound not only to listen with both ears, but to get into the act!

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Cybernetics essentially deals with the technical processes of making things automatic. Cybernetics can be as simple as an ordinary oil burner-thermostat set-up —or a giant calculating machine. Human beings are cybernetic devices, in a way; and this is what leads to the controversy.

One school of scientists says that the world is becoming so complex and automatic mechanisms are becoming so common that the time will come when this process of automaticity will extend into almost everything. Furthermore this school says that eventually it will be possible to build a machine so closely analagous to the human mind, that that machine may be said to *think*.

The second school agrees with the first part of the above statement but when it comes to the latter part about creating thinking machines, it says uh-uh, no soap. Now if you're interested in the matter you belong to either one group or the other.

As for us, we'll string along with the first bunch. We *do* think the day is coming when thinking machines will be made. On that score we're positive. Even the relatively crude experiments of scientists today, ranging from the marvelous automatic computing mechanisms to the little mechanical animals, "Elmer and Elsie", assure us of that fact.

The "no-go" group maintains that while automatic machines are marvelous and they will do just about everything claimed for them, they still will not approach the human mind, the most complex machine there is. Well, that, we think, isn't true. The mind is tremendously complex and impressive while the machines are relative children's toys. But remember, *this is only the beginning.*

Naturally there can be no conclusive answer to this conflict—yet. But we think that within the next few decades, even allowing for the possible interference of war, there is going to be such a radical and astounding change in methods and ways of doing work with machinery, that even the die-hards will concede that machinery—if it can't be made quite "to think"—will come mighty close. The human duplication of the brain is a long way off—tremendously remote—but it isn't impossible. C'mon, cybernetics, we're with you...

ENOUGH TO EAT?

★ By CAL WEBB ★

WITH THE world's population jumping forward in huge steps, the prophets of gloom are carrying on with their predictions of an eventual Malthusian death—"a neo-Malthusian death" they refer to it. This is honor of the famous Malthusian theory which predicts the eventual exhaustion of the Earth's food supply by the growth of population. To a certain extent, the "neo-Malthusians" have an argument and you might wonder in light of the fact that the population rate of the world is definitely growing a lot faster than the food-rate, how we can hope to survive. At present rate, there simply won't be enough food to go around. We in the United States don't have to worry—but the rest of the world—and particularly Asia—whew!

Well, there is an obvious answer, a true answer, we believe. If you recall it wasn't so many years ago when the exact opposite was predicted. Man is destroying himself, the prophets cried then. And whole nations offered bonuses to their people to encourage them to have large families. Why the sudden change?

There seems to be a series of cycles extant, which we may likely witness once more. As a living standard increases over a long period of time, it seems an inevitable corollary that the birth rate goes down. This experience has appeared everywhere on Earth where there has been time for the living standard to go up greatly. Where it is low, almost automatically the birth-rate is high. During the recent wars, however it has been observed that the birth rate went up and it is this fact, that encourages the neo-Malthusians to make their fearful cry.

We suspect that it is only necessary to watch carefully over the next decade or two, particularly if there is some peace and some security, to discover a gradual diminution in birth-rate. People want luxuries at the expense of children.

Therefore, in light of these observations we may safely predict that we needn't worry about the rat-race between population and food supply. It will stabilize itself eventually. Another—and perhaps decisive factor—which may intervene, is the fact that technology is changing the farming methods of the world, and with every bit of available arable land brought under cultivation, aided by hydroponics and all the other agricultural techniques, there will be no danger at all that insufficient food will be around. Also there is the vast, practically untapped reservoir of the sea.

So, we can safely thumb our noses at the neo-Malthusians. They are false prophets of doom, wise only to short-term events, not looking at the broadest aspects of the events they decry. Pass the potatoes, friend—I'm hungry!

★ ★ ★

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

READER'S PAGE

SCHOOL'S OUT...

Dear Editor:

Ahh, the teen-age-fan controversy is here again. I was hoping it would turn up in this issue so I could air my views on it and declare to the world that I'm a teen-age fan and proud of it.

I know four of the people in the September Reader's Page. They're all teen-agers. Earl Newlin makes the fifth, and I the sixth. That's six positive teen-agers out of the thirteen contributors to this month's column.

Of the remaining seven I am only sure that Craig Browning isn't under twenty. The rest may or may not be, but it's likely that at least half of them are. That makes 9 out of 13 who are teen-agers. Yippiee, we're going places!

But let's face it: It doesn't take a super-intellect to understand most stf. In fact, the major portion of it is suited to the mental age of the nation—12. I doubt most of us teen-age fans are above the average teen-ager in I. Q. We do have more imagination though, and that's one of the things that counts.

We're not reading comic books because most teen-agers don't; at least the average ones don't, and we may be a few degrees above average. Let's tell ourselves we are, just to build up our egos, anyway.

Then too, the word, "teen-ager", covers a lot of territory, or rather, time; seven years, in fact. A teen-ager may be 13, 19, or anywhere in between and still be called a teen-ager. He may be entering the eighth grade next year or graduated from college last. Of course, those are extreme cases, but they are fairly common.

There's a lot of difference in the ability of a grammar school kid to understand what he reads and that of a college graduate. Probably as much difference, in fact, as is found in a cross-section of the adult world with its bricklayers and doctors, professors and ditchdiggers, teachers and maids, scientists and street cleaners, etc. Therefore, you can't judge or tell anything about the reading taste of a person by saying, "He's a teen-ager." It's the same kind of logic as an example I saw purposely put in *Practical English* last winter: "Monkeys like bananas. This animal likes bananas. Therefore, this animal is a monkey."

I imagine Silverberg, Briney, Paley, Hoskins, and others will comment on this teen-age business in the letter column with this letter (if it gets published) so I'd better leave it now.

I can't find words to tell you how glad I am to see the letter section longer than in previous issues. But let's make it much longer—twice or three times its present length, in fact. It could easily be done by cutting out a short story (which would save ZD some money) or some of those blasted articles (which I used to hate so badly, but now like a little—although not half so much as the letter section). I think Paley's idea of giving an illo to the writer of the best letter each month is great! If it's done this month I cast my vote for Newlin. I think he's got some grounds for hoping that he's above his "comic-devouring friends." He can certainly write swell letters.

Ed Hamilton in FA! No! No! No! No! Great ghu, Hoskins, don't we get enough of him in TWS and SS? I'll admit he's good, but enough of anything is enough.

I do agree with Bob on another portion of his letter, though. Fan-Fare is a swell zine. I've read all four issues, and the quality, which wasn't bad at first, is going up and up. Can't even get a story in any more. The requirements are so high.

Well, I want to say two more things and quit before this letter rivals those of Fan-Fare's ed in length:

(1) The cover this issue is great! Those white, furry mammoths with the background of lavender mountains, blue sky, blue-looking snow, crystal-clear ice and a mixture of green and yellow light just visible over the mountains; and the golden tips on the end of their great black tusks really do wonders for the cover. Oops, there's just one mammoth, but what matters it?

(2) Lots of people seem to have something wrong which I want to clear up:

There's a great fan club named Young Fandom which many fans think is for young fans. It is, but not in the sense that the members be young in fandom. That is, that they must not have been fans long. Get it? Good. Now you can join Young Fandom whether you're 9 or 90.

I close with the promise to write again next month, even if I'm in Korea.

Tom Covington
315 Dawson St.
Wilmington, N. C.

We'd like to echo what you said about stf fans having more imagination than the average. Maybe what the world needs is a few more dreamers.....wlh

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A BUSHEL OF ORCHIDS

Dear Editor,

Congratulations on the September issue of FA. Somebody should send you a bushel of orchids. You should have more stories as good as the ones you published this time. The illos were all good, too.

THE WARRIOR QUEEN OF MARS was the best story in that superb ish, THE LAST BOUNCE next. Third on my list is LORELEI STREET, and all the rest come fourth.

Jones is, as usual, excellent on the cover and I'll pick Sharp's pic on pages 54-55 as the best interior.

I read AS about a week ago and it was good, too, YOU CAN'T ESCAPE FROM MARS being the story to receive top rating in my book.

Why don't your artists sign their names to all the pics, I always sign mine and I don't find it too much trouble, nor do I miss my regular meals by doing so. And how about some more cartoons next time? Maybe you can't find cartoonists to work for you. Whatsa matter? Run out of money? I'll cartoon for you if you say the word (altho it's no fun just reading your own cartoons, except that the money gives you some fun). Say it!

Well, since this is only the second issue of FA that I've read, I won't say any more about it, but look for me next month. I'll be around (I hope).

Harold Hostetler
43 3rd Street
Cairnbrook, Pa.

We're always looking for good cartoons. If you think you've got a few, try your hand. After all, our rejection slips are as good as anybody's!.....wlh

THOSE GREAT OLD YARNS

Dear Bill Hamling:

I don't want to prolong this controversy over reprints, but please permit one last rebuttal. Naturally, there's nothing personal in any comments I make. You may or may not remember that I used to subscribe to a fan mag you edited—and it was a good one, too.

Now for this reprint issue. I still think there are enough markets for the *good* writers and that the reprint mags won't hurt anyone but the hacks. I am not opposed to adventure—many of the old yarns were primarily adventure. But I would like to re-read some of the old stories and I'm sure others would, too.

It's true that Smith's and Campbell's stories are out in book form—some of them, anyway. But just tell me where I can get a copy—at reasonable cost—of DRUMS OF TAPAJOS, TROYANA, SUB-MICROSCOPIC, AWLO OF ULM, SWORDSMAN OF SARVON, THE LADY OF LIGHT, and other yarns by Harl Vin-

FREE SUBSCRIPTION FOR 1 YEAR

WITH THE PURCHASE OF ONE OF THESE WONDERFUL BOOKS

397.	The Dark Other—Stanley Weinbaum....$3.00	300.	The Kingslayer—L. Ron Hubbard $3.00
370.	The Rat Race—Jay Franklin..... 3.00	233.	Nomad—Geo. O. Smith....$3.00
247.	The 31st of February—Nelson Bond..... 3.00	182.	Without Sorcery—Sturgeon $3.00
209.	Lest Darkness Falls—de Camp..... 3.00	221.	Planets of Adventure—B. Wells $3.00
283.	Venus Equilateral—Geo. O. Smith..... 3.00	214.	Wheels of If—L. S. de Camp..... 3.00
353.	Omnibus of Time—Farley..... 3.50	222.	The Triton—L. Ron Hubbard..... 3.00
293.	Port of Peril—Otis Kline..... 3.00	205.	Cosmic Geolds—John Taine..... 3.00
181.	Slaves of Sleep—L. Ron Hubbard..... 3.00	110.	And Some Were Human—Del Rey..... 3.00
268.	The World Below—S. F. Wright..... 3.50	248.	Men Against the Stars—ed. M. Greenberg 2.95
356.	Masters of Time—van Vogt..... 3.00		
217.	The Radium Pool—Ed. Repp..... 3.00		
223.	Worlds of Wonder—Stapledon..... 3.00		
210.	Lords of Creation—Eando Binder..... 3.00		
284.	Sidewise in Time—Leinster..... 3.00		
351.	Man Who Sold the Moon—Heinlein..... 3.00		

GET ACQUAINTED OFFER

THE AMAZING STORIES MAGAZINE sent direct to your home for ONE YEAR FREE with the purchase of any book listed above. This SPECIAL OFFER is given to introduce you to the many advantages of Readers Service Club membership . . . including EXTRA BONUS BOOKS, monthly illustrated catalog listing Bargains in Science-Fiction, Fantastic Adventure books priced at 25c, 49c and up.

MARK YOUR CHOICE HERE!

READERS SERVICE BOOK CLUB, Dept. Z-10
119 E. San Fernando St., San Jose 21, Calif.
Please send me book number (s).....
This order entitles me to 1 yr. FREE subscription to Amazing Stories.

☐ I enclose ☐ Send postpaid
☐ Send C.O.D. plus postal charges.

NAME .....
ADDRESS .....
CITY .....STATE.....

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

cent, John Campbell, Jack Williamson, and the others that flourished in AMAZING'S heyday.

My criticisms of FA were based on older issues. Recently you've improved. The stories by Sturgeon, Leiber, and the forthcoming Hubbard novel bespeak a new era. I'm glad to see it. I used to like FA. It can be great again, but please leave stf to AMAZING. I'm reading FA again now, though the current issue slips back again to hack—at least in the lead novel. AMAZING I still can't take yet. I'm waiting to see if this change to a slick is really going to improve the stories.

In conclusion, I'm reserving judgment on the current mags. But there's no doubt about the quality of the old ones. So, if you don't want to reprint those great stories, why not permit others to do so?

Donald V. Allgeier
1851 Gerrard Ave.
Columbus 12, Ohio

The cold facts are that reprint mags hurt legitimate mags—because the fan who buys the reprint may not buy the legitimate magazine due to lack of cash. After all, one can't be expected to buy every book on the stands!.....wlh

PERFUMED PAGES YET!

Dear Sir:

Enjoyed your September issue very much. Esp the novelette WARRIOR QUEEN OF MARS. It, in my opinion, was the best in the mag. THE LAST BOUNCE ranked a close second.

Glad to see that FA is using some stories about our own solar system as well as outer space. After all, the way things are popping now, it shouldn't be too long before we start visiting them. Our solar system, that is.

Keep up the stories on Mars and the others. SF Fandom is going to get a lot of new members unless I miss my guess. I saw the motion picture ROCKETSHIP X-M and enjoyed it very much. I asked a few people what they thought about it afterwards. They were so sure before that SF was a lot of junk for 7 and 8 year olds. Now they are a little interested. I referred them to the different SF Promags. Most said that they were going to buy a copy to see what it is like. I'm sure that once they start, they will not be able to stop.

NO HEAD FOR MY BIER was a little too far fetched for me. It did not have any scientific basis at all. Same with THE FIFTH CHILD.

Have been hatching a little idea for quite awhile, so I might as well tell you. Why don't you start a little SF dictionary for your readers. Explain a little about the different terms used in SF stories. And explain the lingo the SFFan clubs use. They have so many terms and letters that I get a little confused. I'd be willing to buy the first copy from you no matter what the cost. Oh yes, what exactly is a space warp anyhow? That is just one of my problems.

Enjoyed reading Morton Paley's letter to you. Even though he is a member of the Centaurians, I agree with you on the idea of having each and every story complete. It gripes me to get to the most exciting part of a story to read that it is to be continued next month.

Oh yes, what is all this about our little lady "Toffee"? All of your fans seem to be going crazy over her. Did you use perfume on those pages? Well?

James L. Thompson
Secretary-Editor
The Centaurians
7 Richard St.
Rochester 7, N. Y.

That stf dictionary sounds like quite a project. Anybody care to take it on?...wlh

FAN MAGS, CONTESTS, AND THINGS

Dear Bill:

The latest FA has come to attention... not quite so good this issue. WARRIOR QUEEN OF MARS. Do I have to tell you how bad it was? You are an editor; you should know. Maybe you were trying to get rid of it... Anyway, it was all I expected, and less! And what an original title! And that beautiful, original prose at the end! My, my, I thought when I handled such a situation, it came out like that, but I expected no professional to be guilty of such trite, stereotyped material.

My ghod, there are so many things wrong with the story that I won't even bother to pick it apart. I won't be surprised if you don't get any more letters than one praising that story (Calvin Thomas Beck and/or pseudonyms will, of course, be present).

So I'll skip to those that *did* have some value.

THE FIFTH CHILD was very good, although there were one or two conflicting points in the story; which same I shall be kind enough to overlook. THE SHIP SAILS AT MIDNIGHT was the same type of story, and about as good, although had it been better written it could have approached greatness. THE LAST BOUNCE was fairly good. LORELEI STREET was mediocre. Are Phillips' other writing activities encroaching on his Ziff-Davis standard?

DETONATOR was poorly handled, but still readable. NO HEAD FOR MY BIER was funny; can't make up my mind whether intentionally or not.

LOOK FAST FOR MOLECULES, one of your features, reminds me of something interesting, which perhaps should have been included in the article (by the way, I see you're getting back to the old 'informative' type of filler; I still say, let the fans do them for you). The electron microscope is the best instrument for high magnification; yet its very nature precludes the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

possibility of ever seeing an electron! Ergo, if an atom is as pictured diagrammatically, then the only thing we'll be able to discern is the nucleus. But I guess we've got a bit of a way to go yet before we develop the microscope that far.

Because I've been so busy of late, I've neglected to write you, so that the last couple issues have not contained Me (Guess certain people will be moved to madness in the October issue, though, huh?). I've also neglected to mention a few attacks on me by readers of FA. Now I've got only one thing to say, and this is it: only one person can keep me out of FA's Reader's Page, same being ye ed. I have no intention of being pushed out merely because I bothered to write to the magazine when some of these others sat back and did nothing. I won't say I don't like to appear in a letter column, but even the loss of the column wouldn't stop me from writing, though mayhap a bit less regularly —as no one should realize better than the Ziff-Davis aggregate, since they could have made up a whole letter column with the epistles I tossed their way when the letters-from-readers feature was discontinued for a few months.

Psst. Come closer. Don't tell anyone, but ...I have it right from the Dero who introduced him to science-fiction—Calvin Thomas Beck is three years old! There! Maybe that'll be enough of that. According to Richard Abbott (*a very, very good* friend of his) he is about twenty-four. So this is all very nice; let's go, ladies and gentlemen, guess the age of CTB. Closest guess wins sixteen thousand, four hundred thirty-nine copies of "I Escaped From XXX Planet Stories," by Paul L. Payne.

Mr. Editor, maybe you don't realize it, but that same Robert Briney who demands that our present authors turn into Merritts and Haggards and so on might well turn the trick himself! (Now it's your turn to say something nice about me, Bob—ghod knows somebody should!)

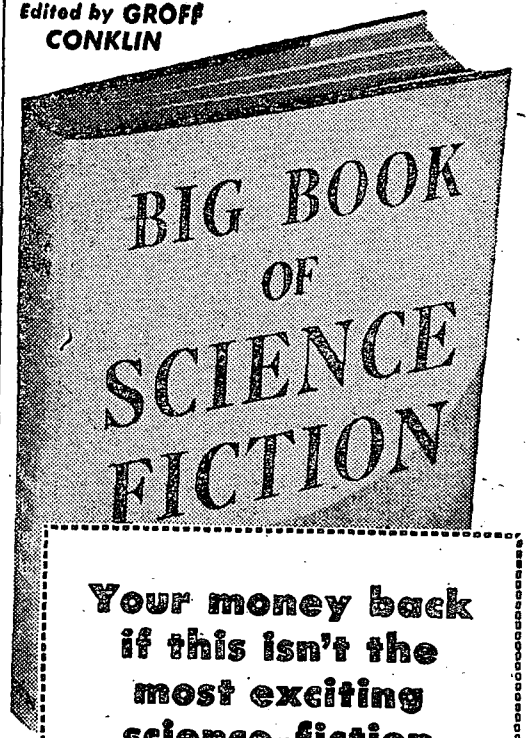
Newlin has no cause for worry concerning the puerility of sf. Of late, there has been an influx of fairly young fans (including me), due mainly perhaps to the increase in s-f publications and the versatility of the Younger Generation; besides, most fans seem to start quite young. Age, however, like women, is insistent.

Well, well, well! Two mentions of FANFARE in the RP, and I didn't even write! I bet no one even writes me about it though!

The hardest thing about a fanzine is selling it. The quality of your merchandise really has little to do with it, since it's impossible to show it to the prospective buyers, and they are purchasing blindly! The only advantage you have in publishing a *good* fanzine is that Sam Merwin puts you on his "A-list" in STARTLING STORIES. And you have a point to start from in your advertising.

The only trouble in that is the one which manifests itself in my case. FANFARE is.

Edited by GROFF CONKLIN



Your money back if this isn't the most exciting science-fiction anthology you've ever read!

32 great full-length stories. 544 thrill-packed pages! All new! The book bargain of the year for science-fiction fans! Action stories of interstellar travel; supersonic speed, and atomic power, by *Padgett, Kaempffert, Pratt, Sturgeon, Bradbury, Leinster, Russell,* and many scientist-writers. *Just published, only $3.00*

☞ **SEND NO MONEY NOW! SATISFACTION GUARANTEED!** Examine this mammoth feast of science-fiction reading for 10 days. If not delighted, return it for full refund of purchase price. Just mail this coupon.

CROWN PUBLISHERS, 419 Fourth Ave., N.Y. 16
Please send me BIG BOOK OF SCIENCE FICTION. I will deposit $3.00 plus few cents postage with postman. I may return book for refund of purchase price in 10 days.

Name .....

Address .....

City ..... Zone ..... State .....

☐ SAVE C.O.D. POSTAGE CHARGES. Check box and enclose remittance. Same refund privilege.
S-4

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I can say modestly, one of the best fanzines being put out—and what is more important, one which is of interest to a passifan. Yet if my prospective buyers, after seeing my advertisements in other FANZINES and letters in prozines, look at Merwin's listings, they find a "B-listing" and a mention of poor contents. When this is published, I have hopes that that situation will be rectified, for F-F now is of "A" quality, while those now (at this writing—July 24, 1950) being reviewed were the hectographed issues. I can easily sit here and say that my mimeoing does not strain the eyesight, and is as legible as printing; but I can't show my issue to anyone. Darn it, I wish I had television.

Actually, it's true. They've found that one picture over the television screens is as good as a thousand words over the radio.

So what can I do? I cut my price as much as possible, come out with such offers as "Send 65c for 6 issues and if when you have gotten three issues you are not satisfied that you are getting your money's worth, merely ask us to stop your subscription and we shall return 35c of your subscription," and sit back and pray. Actually, at this point I could carry on satisfactorily with what I have, but I'm not satisfied—I want to increase page number, make up special issues like the projected four-dozen page Anniversary Issue, and do other things.

Your editor realizes, even if you readers don't, that I have just sneaked in a page of free advertising; if he didn't, he knows it now. I hope it stays in.

Well, the letter column was nice this issue, long too. Good. Keep it that way; and I'll continue to "help" by writing one-page letters and three-page advertisements.

Before I go, another idea... Why not work out something like this: have a continuous contest open to amateur authors for a story of a certain inclusive length (2,000-3,000 words or something similar). Then publish it in the small type you use for features, even if it has to be continued all over the place. The features can still appear in the space beneath where a story ends.

The contest could work like this: it would always be open, and you'd pick the best of the stories that have been submitted for an issue just before it's time for the issue to be made up. All submitted stories could be property of Ziff-Davis, or else you could date each manuscript and return it after a year had passed if you couldn't make use of it. It would be open only to amateur authors, and as a "prize" you could pay 1c a word. By considering the payment as a "prize", the authors wouldn't lose their amateur standing. Another thing would be to restrict one author from winning more than once in a year; if he has won once during a January-December year (considering the dates on the magazines in which the stories appear) he cannot enter again until the time for the next "January" issue comes 'round.

What do you think of this, Mr. Editor? Why not talk to Messrs. Ziff and Davis and the rest of the bright boys about it? It does away with one main argument against amateur stuff in a professional magazine; it won't be listed with the professional stories, or even done in the same size type as they. And any amateur story you could pick would be as good as those features of yours.

What do the rest of you readers think? How about it! There's enough time, Bill, so that if you act now you can begin with the January FA. I think the idea is good. And the amateurs who are good enough to become professionals should really feel their efforts are being rewarded!

W. Paul Ganley
119 Ward Road
North Tonawanda
New York State

First of all, Paul, we like you! So t ere! And you are one of the most loyal contributors to the RP. As to your fan mag, how about it, fans? Why not give Paul a break? We can speak personally about these fan projects. We edited a printed, slick little job a decade ago ourselves. It was a lot of fun, but getting subs was just as hard in those days as it apparently is now. And we'd like to say that these amateur fanzines do a good job of exploiting science fiction and holding fan clubs together. It's as worthy a cause—even more so—than the annual stf Convention. Without the fan mags there wouldn't be any Conventions! ...As to the contest, we'd like to get a big reader reaction. Huh, gang? .....wlh

TREAT THEM ROUGH, HE SAYS!

Dear Ed,

Hey, Ed, how about putting an invite at the top of the Reader's Page like this: "This is your page. We are always glad to print as many interesting letters as we have room for. What do you think of the stories? How can we improve FANTASTIC ADVENTURES? We are sorry that the exigencies of printing require magazines to be put out quite in advance of the date appearing on them, therefore, letters should be mailed about 10 (?) days after the time the magazine appears on the newsstand."

Three or four pages of interesting comments and suggestions (you don't have to *go*, of course!) that the company doesn't have to pay for is better than one stinkeroo story such as—well, I don't want to hurt anyone's feelings, so I won't mention its name—even authors are human—it is said—appeared in this September issue of FANTASTIC ADVENTURES. If you got a few letters that were illegible or, say, off the subject, you could put a note at the end of the Reader's Page like this: "And that, kiddies, is all for this month that we have room for. We also received

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

interesting letters from John Smith, Ralph Bailey, etc. etc." People like to see their names in print. Unless it's on a Sheriff's "Wanted" poster. You know how it is.

Bailey has figured out why it is that in some mags you see letters from the same person several times. These letter-hacks, er, I mean, gentlemen and ladies, are subscribers and have time to read and comment on the stories about 10 days before the *hoi polloi* can get the mag at the stands. Er—if you print this maybe *I'll* have to go around disclaiming that I'm a letter-hack, 'cause you printed a letter of mine before. Sort of like the young girl who was teased that she was a flirt merely on account of two or three kisses. But that is the way writers are. If, for instance, the writers get one letter or book accepted, they are not satisfied until they've inflicted a whole row of tripe on the long-suffering public, instead of working for a living! The writer who can't write too much to suit his enchanted public—like Alexander Dumas or Edgar Rice Burroughs—is a scarce boid—*rara avis* to youse.

The reason *I* don't like to get magazines by mail is that, (1) the publisher usually louses up the cover with a gummed sticker, (2) the Postmaster (apparently) usually folds the magazine in half and jumps on it four times, thus putting an ineradicable crease on the cover and spoiling the picture, (3) the mailman (usually) tries to jam it into a mailbox that is inevitably too small for it, or leaves it on a hall table where everyone can see it and say to themselves: "Hmm. That bum reads 'The Rag-Pickers Journal', 'The Saturday Afternoon Pest', etc.," whatever the case may be, (4) I haven't got the two dollars and fifty cents.

Well, leave us leave this inane chatter and get going rippin' the September FANTASTIC ADVENTURES apart. It is not one of the best issues, nor one of the worst, either. Three good stories out of seven is worth anyone's twenty-five cents. Even one good story is. I've noticed in FANTASTIC ADVENTURES' fairly long history that "fantastic" too often is held to mean "absurd". Personally, I'd rather you leave the pages blank that are used for such tripe as, in this issue, NO HEAD FOR HIS BIER. Even Mr. Hack himself could not rewrite a story like that and make anything worth reading out of it. Why not shoot the author? I'll buy a bullet. I suppose if we critics are so smart we should write a better story ourselves? Well, that *does* happen, sometimes though; for example, a person who sees a badly constructed sculpture or painting is not therefore necessarily able to make a better one. So perhaps the average smart-aleck newspaper columnist or editorial commentator would not make any better mayor, senator, governor, or prez. than the one he yaps at. Let's hope so.

For first prize to authors this issue (one young Venusian cat-woman) I pick

Do You Remember Kiki?

• At 12, she began to pose in the nude for a living.

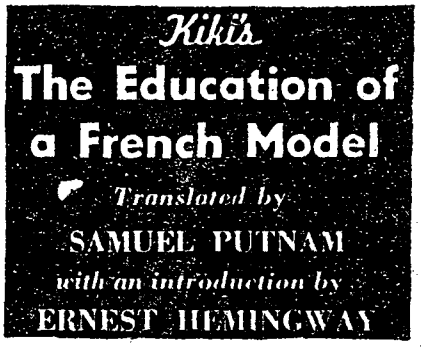
• At 20, a play about her tantalized Paris & New York.

• At 30, she wrote her memoirs and told everything, including an attempt on the virtue of her grandmother by a soldier of the A.E.F.

KIKI'S MEMOIRS

— filled with bizarre photographs and sketches — so impressed Paris that the man who made an English classic out of *Don Quixote* translated it, and the author of *For Whom the Bell Tolls* introduced it.

• And here it is:



• "A woman who, as far as I know, never had a room of her own," Hemingway says of the author of the book he calls "the best I've read since The Enormous Room."

• So she has no room of her own, no money of her own.

• But what else does a woman need if she has charm?

• And if she has a man for every strange whim of hers?

• Kiki was a woman of many strange whims—and men.

192 pp. Lavishly illustrated.

$2.98

BOOK FAIR: 110 LAFAYETTE ST.
New York 13, N. Y.

Gentlemen: I enclose $2.98 for a copy of *Education of a French Model*, which I may return for *full credit* if it doesn't utterly delight me.

NAME.....

NO. & ST. .....

CITY ..... ZONE.....

☐ Send COD STATE.....

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE SHIP SAILS AT MIDNIGHT.

For second prize (three-year free subscription to some good science-fiction mag!) to DETONATOR.

And third prize (a couple more *aliases* and a gold fountain-pen) to WARRIOR QUEEN OF MARS.

And say, if you got any crazy ideas of giving illos for writers of *good letters*, thank you kindly. I like the pitcher for THE SHIP SAILS AT MIDNIGHT—the tomato, that is, not the space-ship, of course. Like true to form runny-nosed little adolescent professional science-fiction fans, how could I be interested in pictures of, or have brains enough to comprehend, the possibility of the existence of things I have never sawed none of with my own eyes, such as spaceships, and caves and ray-guns and stuff? But maybe there is hope for me—that is, if I don't wrot my brains out wreeding weird tales—in another ten years I might learn something. Who knows!

The illo on Page 112 also is extremely well done, though the story is not worth mentioning.

Now! Let us consider the cover. The old fuddy-duddies simply *screamed*, no doubt, when they saw not one, but *two* LHB's (Luscious Half-Dressed Babes) on the cover. In fact, there's *four!*

Women make good pets, but it costs a lot to feed them. The important thing when one gets a new pet (one will say, one will, as this is a family magazine, that one has—during a spell of temporary insanity—could happen to anyone!—*married* the pet), well, the important thing is to teach the pet *obedience!* Clear a large space on the living-room rug. Command her:

"Lie down!"

"Roll over!"

"Sit up and bark like a dog!"

She probably will. If not you'll have to use a wife-whip on her. (Not enough to bruise her pink hide, of course.) Can buy a good wife-whip in any house-furnishings store (a short length of soft silk curtain rope). Or else give her a kick on her plump bottom. (That is why God made her nice and round there, 'cause of knowing that she, being a woman, would need plenty of correcting—you can't tell God nothing. He knows what's wot.) But, of course—need I say it, take your shoe off first, as no gentleman (or Professional Science-Fiction Fan, either) kicks a lady with his shoes on.

But to get back to the Babes on the cover. *Them* Babes are a problem! The story says they are six feet four and have an extremely low body temperature. Can you imagine an ordinary height man like me, handsome though I be, telling a six ft. four doll to lie down, roll over, sit up and bark like a dog! Perhaps the best way to win them would be more with love and kindness than by authority. Some people say this method works better on *any* woman, but I doubt it. The average girl needs plenty of cuffing around—for her own good. (Would be less divorce and neurosis.)

But the low bodily temperature of these Amazons? Probably it would take even me two, three hours to warm one up good! But, of course, good solid Babes with plenty in the right places—lots of nice firm meat on them—are the best kind. Besides—with a low temperature, these Amazons could go around dressed merely in a sweet smile and their bare pink hide, and save their clothes-money.

Thanks for changing those fictionized-fillers at the end of stories. It was a good idea, but like so many good ideas, it didn't work. One person can't think of everything, anyway. That is why your readers may come up with a good idea once in awhile how to make FANTASTIC ADVENTURES even better than it is and a worthy companion for AMAZING STORIES.

Ralph Bailey
354 W. 56 St.
New York 19, N. Y.

If you're married, Ralph, that nightmare that kicked you out of bed just now wasn't a dream! ...But on second thought, with such an outlook you couldn't be married! Guess you'll just have to wait for some nice Martian Maid to practice on. At any rate, our covers sure do start things popping.....wlh.

GETS THE CHECKERED FLAG

Dear Bill:

Cover on the September FA is fair. Too cluttered up. Get covers by McCauley. Interior illos good. R. G. Jones' int. illo for WARRIOR QUEEN OF MARS— Par Excellence. Grab a look at illo for DETONATOR. Gommers' facial expressions are sleazy. Illo for LOST BOUNCE—O.K. Pic on NO HEAD FOR MY BIER is run of the mill, as are all the others.

As for stories—WARRIOR QUEEN OF MARS is under the wire for 3.9 and gets the checkered flag. Title is similar to that of a story that appeared in PLANET STORIES—I think 'twas in Summer '50 ish of the said rag.

Two way tie for second as THE SHIP SAILS AT MIDNIGHT and THE LAST BOUNCE bank a skid and intersect the buoy line simultaneously. Both stories darn good. They are as illusive and strange as anythin' I've ever read—almost.

NO HEAD FOR MY BIER and DETONATOR tie for third at 2.7.

The rest of the contents rates 2.5 or below.

I have precisely nothing more to say, so I will kwit.

Don Lanoue
N. 5028 Walnut
Spokane 12, Wash.

We thought Leiber and Tenn did good jobs on their stories too.....wlh.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

FUTURE
By LEE OWENS
FABLES FROM THE

VENUSIAN CLAIM-JUMPER

THE FAT man waved airily. "That's all I want you to do, Johnson," he said, "Make a regular daily patrol in the heli—but don't do it exactly on schedule. I don't know who the raider is—but he's ambushed two patrols already."

In spite of the de-humidifiers I could feel the oppressive sticky Venusian atmosphere weigh me down. I shrugged.

"I'll worry about that, Blanding," I said. "I'm no amateur with a rifle."

"Get this straight, Johnson," the fat man said. "I'm paying you to knock off this claim jumper and his raiders. I don't want another dead man. These people are mighty shrewd and it's a dead certainty that an Earthman's behind them. They're getting away with hundreds of tons of uranium ores. Remember this is for keeps. You're not playing games with children."

"You hired me," I said, "remember? I'll handle my end of the job."

He dragged his ponderous bulk to his feet. "Well, that's that. You'll operate out of Hut No. Four, a new magnesium job we've hidden pretty well. If you want you can leave right now. The heli is outside, with your equipment and food supplies. I suggest you drop in once a week, at least."

I left the room with a strong feeling of dislike for Blanding. There was something treacherous about the man. I climbed in the heli and checked my equipment, including the rifles, my heat pistol and the spore suits. Here in Veneria, you didn't have to wear spore suits because the atmosphere was acrid with chemical sprays which destroyed them. But out in the bush-brother, if you were caught a minute in an open space before a thorough rain had cleared the atmosphere, your lungs would blossom into hideous cancerous growths.

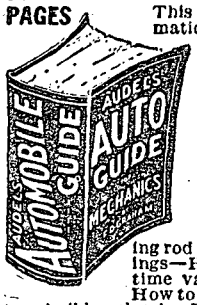
The heli leaped into the air at my touch. In spite of the mugginess and stickiness of the dense air, there was something interesting about the job. I've knocked around a lot, but this Venusian venture looked good to a System stray like myself.

The first week nothing much happened. I patrolled Blanding's claims but I saw nobody except the almost human Venusians patiently working the mines for Blanding. Once or twice an overseer would come around for a check-up but for the most part the natives worked alone.

I was in the hut one night after a long thirty kilometer patrol. I'd just finished eating and was half-dozing into sleep. I

WHAT ALL AUTO MECHANICS WANT TO KNOW

1800 PAGES



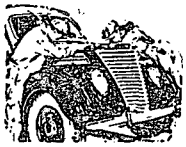
This Big Practical Book gives full information with working diagrams covering the principles, construction, ignition, service and repair of modern cars, trucks and buses.

Diesel Engines, Hydramatic & Fluid Drives Fully Explained.

A complete Guide of 1800 pages, with over 1500 illustrations showing inside views of working parts, with instructions for service jobs.

IT PAYS TO KNOW

How to fit pistons—How to locate engine knocks, How to fit connecting rod bearings—How to service main bearings—How to recondition valves—How to time valves—How to adjust fan belts—How to adjust carburetors and chokes, How to rebuild a clutch—How to service automatic transmissions—How to service brakes—How to adjust steering gear—How to cope with ignition troubles—How to service distributors—How to time ignition—How to "tune up" an engine.



$4 COMPLETE • PAY $1 A MO.

TO GET THIS ASSISTANCE FOR YOURSELF SIMPLY FILL IN AND MAIL COUPON TODAY.

AUDEL, Publishers, 49 West 23rd St., New York 10, N. Y.
Mail AUDELS AUTO MECHANICS GUIDE ($4) for free examination. If O. K., I will send you $1 in 7 days; then remit $1 monthly until $4 is paid. Otherwise, I will return book promptly.

Name_____

Address_____

Occupation_____

Employed by_____ ZIP

ILLUSTRATED COMIC BOOKLETS

THE KIND MEN LIKE!

(VEST POCKET SIZE)

They are loaded with rare cartoons. Full of Fun and Humor. 20 DIFFERENT booklets sent prepaid for $1 in plain sealed wrapper. No C. O. D.'s.

GRAYKO, Dept. 2018 Box 520, G.P.O., N.Y.C. 1

STOP TOBACCO?

Banish the craving for tobacco as thousands have with Tobacco Redeemer. Write for free booklet telling of injurious effect of tobacco and of a treatment which has relieved many men.

In Business Since 1909
300,000 Satisfied Customers
THE NEWELL COMPANY
284 Clayton Sta., St. Louis 5, Mo.

FREE BOOK

Photo Developing & Printing

8 Exposure Roll . . . 40c

Enlarging—8x10 print 40c
Photo Copies, Camera Supplies, Camera Repairs

Jay's Photo Service

500 S. Eastmont Ave., Los Angeles 22, Calif.

4 FOUR NEW DISCOVERIES

LIFE ON MARS, reveals mystery of canals. 50 p.. $1
SATURN HAS RINGS, on planet evolution. 50 p.. $1
GREENHOUSE WORLD, Arctic had palms. 52 p. . .$1
LAST ICE AGE, solves the glacial puzzle. 54 p. . .$1

Send postcard for free circular F-2.

DON CYR, 1412 PALM TER., PASADENA 6, CALIF.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LAW FREE BOOK

Write today for FREE book, "THE LAW-TRAINED MAN," which shows how to learn law for business and the bar easily in spare time at home through the famous Blackstone professional law course compiled by 60 expert law authorities including law college deans, professors, lawyers and Supreme Court judges. We furnish all necessary instruction material including big 18-volume Modern American Law library cited by the courts of last resort as "M.A.L." Many successful attorneys among our graduates. LL.B. degree conferred. Moderate tuition; low monthly terms. Money-back Agreement. Write today.

BLACKSTONE COLLEGE OF LAW
225 N. Michigan Ave., Dept. 239 Chicago 1, Ill.
A Correspondence Institution Founded in 1890

Free for Asthma

If you suffer with attacks of Asthma and choke and gasp for breath, if restful sleep is difficult because of the struggle to breathe, don't fail to send at once to the Frontier Asthma Company for a FREE trial of the FRONTIER ASTHMA MEDICINE, a preparation for temporary symptomatic relief of paroxysms of Bronchial Asthma. No matter where you live or whether you have faith in any medicine under the sun, send today for this free trial. It will cost you nothing.

FRONTIER ASTHMA CO. 256-D FRONTIER BLDG.
462 NIAGARA ST. BUFFALO 1, N. Y.

Relief for
EPILEPSY SPELLS?

Helpful information is available on the control of Epilepsy spells gained through our 25 years experience. Write for particulars.

THE VERNON COMPANY, DEPT. ZD-10
6956 Wentworth Ave., Chicago 21, Ill.

BOY COWBOY

Wholesome Reading
for the Entire Family
10 pages—Send 10c in coin to:
Ziff-Davis Publishing Company, Dept. C
185 North Wabash Ave. Chicago 1, Ill.

heard a knock on the door. I pressed the button which opened the lock and let the stranger in the airlock where he could be sprayed with chemicals before he entered the room. But I held a heat pistol in my hand.

"All right," I said, "come in."

The inner door opened and a figure stepped through. I nearly jumped with surprise. Beneath the grotesque spore-mask and under the bulky coverall, I was looking at a girl. Those curved bulges weren't air!

The girl was fully armed but she had no weapon in her hand.

"Well, Mr. Johnson," she said, "how do you like gunning down innocent natives?"

I raised my eyebrows with surprise. "I don't get it," I answered. "I'm patrolling for Blanding, and I haven't seen a claim-jumper yet."

"Don't lie to me," she said venomously, her voice acid with hate. "I'll show you the bodies, you rotten pig."

"Now wait a minute, sweetheart," I tried to joke, "You're all mixed up." I gestured with the flame pistol. "Besides, I don't like strangers playing rough with me—see?"

She laughed, a short ironic, bitter laugh. "If you raise that gun a centimeter, I'll have you blown to shreds."

Involuntarily I looked toward the glassite windows. I could see three shadowy figures and the unmistakable outlines of rifles—pointed at me!

I shoved the heat pistol back in its holster. "Listen," I said, "I'm being level with you. What's this all about? All I know is Blanding hired me to watch out for claim jumpers. I haven't seen any yet, and I haven't gunned anybody down. Believe me, lady, I'm telling the truth!"

Her eyes narrowed. "You might be just dumb enough at that," she said quietly.

"You don't know Blanding well, do you?" she asked suddenly.

"No, I just met him a little more than a week ago."

"That explains it," she said. "You're coming along with me—I'm going to show you something. I'm going to show you what

IMAGINATION

The Magazine with the NEW LOOK!
DIGEST SIZE
160 pages of the best in SCIENCE & FANTASY
Featuring the top writers in the field: Ross Rocklynne, Mack Reynolds, John Beynon, Charles F. Myers, Day Keene, Guy Archette and Theodore Sturgeon.
DECEMBER ISSUE
On Sale at Your Newsstand October 1st
Clark Publishing Company 1144 Ashland Ave. Evanston, Ill.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Blanding is doing with his—with my—mines."

At her command I put on coveralls and spore-mask and went out the lock. She let me carry a rifle, but of course with three Venerians walking behind us, I was helpless to do anything dangerous to her.

We walked through the night, stumbling and jumping and staggering through the dense vegetation. It's a lot different than working a helicopter, I'll say that.

I recognized the number two mine the minute we came on it. It was an open strip affair. I nearly jumped with shock when I saw what was going on. A half dozen men were loading air scows with ore as fast as they could shovel it. And there was no mistaking that rotund figure. It was Blanding!

We dropped behind the bole of a tree and watched operations. "What is this?" I whispered.

"My name's Corine," the girl said. "These mines were stolen by that dirty dog—the last steal he's ever going to make too," she said vehemently. "I've always wanted to get him within a rifle sight."

"Wait a minute," I muttered, "what's the idea of him raiding his own mines?"

"Don't be simple," she said sharply. "He's avoiding government regulations. He's shipping the stuff back to Earth custom and tax free which just about quadruples his profits. Get the pitch?"

"Corine," I said grimly, "I'm not exactly what I appear either. My real name is Rannon Blake. I'm with the Patrol. This is the leak all right." I glanced at the Venerians. "Tell your boys to play ball with me. I don't want a bullet between my ears."

She muttered something rapidly to her Venerians and they grinned simperingly, nodding their obvious approval.

I drew a careful bead on Blanding. "All right, Blanding," I hollered out, "surrender! This is Blake—I mean Johnson—I know the whole story!" Blanding jerked up with surprise. He made an abrupt turn, agile for a man of such bulk, and a heat pistol flared from his side. The bolt cut through my coveralls. That was all brother. I fired.

The big figure fell. My bullet had gone through a knee-cap. Nothing takes the fight out of a man quicker.

The rest was easy. Blanding's rogues gave up in a hurry. I'd finished another successful patrol. And this one was even more successful. I'm thinking of going into the mining end myself. A beautiful face and a luscious figure—even under coveralls—have a lot to do with it—Corine knows that...

★ ★ ★

DUST STORM...

WITH THE curtains drawing closed for the seeming finale of peace and the prelude to a third world war, the prophets of doom are having a field day. Unfortunately we can't dismiss their her-

DRUNKENNESS

DO YOU WANT RELIEF?

Drunkenness ruins Health, Happiness. BREAK THE DRINKING CYCLE QUICKLY. Use ALCOREM, the amazing liquid that intends to promote aversion (dislike) toward ALL intoxicating drinks. Not classed as a permanent "cure," but it IS a recognized method of withdrawal of alcohol. Interrupts drinking cycle and causes many to turn from liquor. May be taken in SECRET. A few drops of this wonderful ALCOREM eliminates desire for more alcohol. GUARANTEED Pure and Effective. Aversion treatment is recognized by Medical Authority. ALCOREM comes ready to use—simple instructions included—NO BOOKS TO READ—need not cause excessive time out from work or social duties. One happy ALCOREM user writes: "PLEASE SEND ME MORE WONDERFUL ALCOREM AT ONCE FOR A FRIEND WHO IS A HEAVY DRINKER. I BOUGHT FROM YOU BEFORE AND HAD WONDERFUL RESULTS." As an additional help we send...

FREE! 21 PINKIES with order of ALCOREM

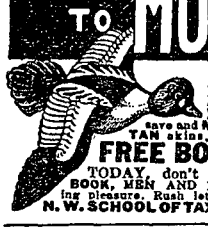
Special Formula capsules to help nervous and digestive system also, FREE WEIGHT CHART. Acts as guide in building reformed drinker to proper weight.

SEND NO MONEY—ORDER NOW

SATISFACTION OR MONEY BACK. Send name and address. We rush ALCOREM, FREE PINKIES and FREE Weight Chart. Mailed in plain wrapper. Pay postman only $4.95 and small C.O.D. charge. TO SAVE C.O.D. CHARGE SEND $4.95 WITH ORDER.

MIDWEST HEALTH AIDS • DEPT. P-10
608 SO. DEARBORN STREET • CHICAGO 5, ILL.

LEARN TO MOUNT BIRDS



ANIMALS, FISH, PETS

Be a Taxidermist. Save your hunting TROPHIES. Have a fine home-museum. Hunters, save and MOUNT your beautiful DUCKS, QUAIL, DEER, TAN skins, FURS, Great Fun. Spare-time PROFITS. **FREE BOOK** Tells ALL about it. 100 fine wild-game pictures, 48 pages. SEND TODAY, don't delay. Get this WONDERFUL FREE BOOK, MEN AND BOYS. Learn Taxidermy. Double your hunting pleasure. Rush letter or POSTAL today. STATE YOUR AGE.
N. W. SCHOOL OF TAXIDERMY, Dept. 4312 Omaha, Neb.

30 POWER SUPER SCOPES!

A SCIENTIFIC INSTRUMENT

Extends to 38 Inches. Precision and Polished Lenses. Ideal for Studying Stars, Plane Spotting, etc. Satisfaction Guaranteed or Money Refunded. Send Check or Money order to

$2.95 Postpaid

CRITERION CO., Dept. D-23
438 Asylum St., Hartford 3, Conn.

Learn Profitable Profession in 90 days at Home

Men and Women, 18 to 60

Many Swedish Massage graduates make big money. Large full time incomes from doctors, hospitals, sanatoriums, clubs or private practice. Others make good money in spare time. Prepare for future security by training at home and qualifying for diploma. Anatomy Charts and 32 page illustrated Book FREE—Now! The College of Swedish Massage, Dept. 053R, 41 E. Pearson, Chicago 11

LEG SUFFERERS

Why continue to suffer without attempting to do something? Write today for New Booklet—"THE LIEPE METHODS FOR HOME USE." It tells about Varicose Ulcers and Open Leg Sores. Liepe Methods used *while you walk*. More than 40 years of success. Praised and endorsed by multitudes

LIEPE METHODS, 3250 N. Green Bay Ave., Dept. 65-N, Milwaukee, Wisconsin

FREE BOOKLET

ILLUSTRATED COMIC BOOKLETS

Sell our ILLUSTRATED COMIC BOOKLETS and other NOVELTIES. Each booklet size 4½ x 2¾. We will send 25 assorted booklets prepaid upon receipt of $1.00 or 75 assorted booklets sent prepaid upon receipt of $2.00. Wholesale novelty price list sent with order only. No orders sent C.O.D. Send Cash or Money order. **Regnas Sales Co., 1 Orchard St., Dept. 40-P, New York 2, N.Y.**

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

QUIT TOBACCO!

Remove all tobacco craving safe in every form and join the thousands who have obtained satisfactory freedom from tobacco with TOBACCO BANISHER. Send for FREE BOOKLET describing the ill effects of tobacco and our safe reliable home treatment, a proven success for 38 years.

GUSTAF H. GUSTAFSON CO.
2325 E. Vickery Blvd. Dept. FG Ft. Worth 3, Texas

ILLUSTRATED BOOKLETS & NOVELTIES

Our VEST POCKET series of ILLUSTRATED COMIC BOOKLETS are full of humor with ILLUSTRATIONS. The NOVELTIES are the kind MEN want for EXCITEMENT and AMUSEMENT. 10 DIFFERENT booklets and 6 DIFFERENT novelties sent prepaid on receipt of $1.00. No C.O.D. orders or checks accepted. WHOLESALE PRICE LIST included with orders only.

LIVE WIRE NOVELTY CO., Dept. 8-P
3 Orchard Street New York 2, N. Y.

—AMAZING—

Every Word Will
Take Your Breath Away
8 pages—Send 10c in coin to:

Ziff-Davis Publishing Company, Dept. C
185 North Wabash Ave. Chicago 1, Ill.

CLASSIFIED ADVERTISING

Song Poems

SONG Poems wanted. Percentage basis collaboration. Terry Tune Master, 709½ Cl N. Broadway, Oklahoma City 2, Okla.

Miscellaneous

MAGAZINES (back dated), foreign, domestic, art. Books, booklets, subscriptions, etc. Catalog 10c (refunded). Cicerone's Center, 86-22 Northern Blvd., Jackson Heights, N. Y.

SCIENTIFICTION weird, fantastic: books, magazines. Werewolf Bookshop, 1508A Riverside Dr., Verona, Pa.

SURPRISE Package. 40 tricks and professional catalogue 50c. Vanishing coin 25c. Plastic Jump up Rabbit in hat with name engraved 25c. Magiden, 716-Z Pine, St. Louis, Missouri.

NEWEST money making sensation. Sell personal initialed belts, buckles, cap and breast badges, tie holders, etc. Choice 2000 emblems. Write Special outfit offer today. Hook-Fast, Box 1425ZD, Providence, R. I.

"INTERESTING Mails," 25c will keep your mail box full three months. Bentz, Jr., Desk B/94, Chatawa, Miss.

FANTASTIC Fiction! Sample, $1.00. Catalog, 10c (refunded). Stone, Luenburg 21, Mass.

FREE Illustrated book "505 Odd Successful Businesses." Work home, $250 week reported. Expect something Odd! Pacific, Oceanside, Calif.

ANALYZE Handwriting! Diagrammed instructions, 25c. Flury Graphology Service, Box 7BB, Darby, Pa.

"THRILLING, snappy, Cuban-Mexican art" pictures, books, miscellaneous; samples, etc., $1.00, $2.00. Jordanart, Box 1265-C, Boston, Mass.

WHERE to buy 800,000 articles direct from manufacturers. Save by buying direct. Sent free, "Your Profits Under the Spotlight." Glass Pub. Co., Ellwood City, Pa.

THERE'S big money taking orders: Personal Initialed Buckles with Belts, Tie Holders, choice of over 3,000 Emblems, Cap and Breast Badges for every purpose. Uniforms, Work Clothes, Embroidered with company name, trademark, sales message, etc. Prospects everywhere. Latest styles, finest fabrics. Write for selling kit. Hook-Fast Co., Box 480ZD, Roanoke, Va.

NIGHTTIME vision tube, $14.95, with instructions. (Snooperscope book, $1.50. Catalogue free. Infrared filter, 10c. Precise, 942 Kings Highway, Brooklyn 23, N. Y.

COLLECTORS' Items. Wayback numbers Amazing Stories, Scientifiction, quarterlies, etc. Mostly more than 20 years. Send $1.00 for sample. Dr. Serfass, 40 N. Third St., Easton, Pennsylvania.

FANTASTIC Lending Library. Read free books. New Bok Plc 9x13, 10c. Free lists. Cocheco Library, Dover, N. H.

rible predictions with a laugh because they're all too true. The biological boys have quieted down somewhat, but the radioactive poisoners are looming up in full force.

As dreadful as the atomic and hydrogen bombs are—just ask a Hiroshiman—their explosive effect is but one-tenth of their ghastliness. They can lay waste vast areas of cities and in the initial fire and flash wipe out tens, if not hundreds of thousands of people—but even more malignant in a far subtler way is terror which follows in their wake. This terror is radioactive dust. The products of the bombs' explosion are not only fragments of the bombs, but also induced radio-activity. This vicious dust billowing up in vast quantities and scattering itself everywhere is more terrible to contemplate than the bomb. Now word comes that from the atomic laboratories of the world, gigantic quantities of simple dusty powders are being made, powders which look perfectly harmless but which are the seeds of sheer horror—radio-activity!

Radioactive dusts, depending upon their half-life—cannot be eliminated in any known way save by painful tedious washing and scrubbing—and not even then, if they have settled into cracks and openings. There is no way to combat such an insidious weapon save by letting it burn itself out. This may take years.

Only time will tell whether or not the great powers will have the audacity to contaminate the very earth and atmosphere with lethal agents like these. The slow sickness of radiation against which almost no medication exists is an impossible and implacable foe. Perhaps no one will use this agent in any future conflict—but don't bet your shirt on it.

From where we sit, the only course for the future—if there be one—is to take the fastest rocket for Mars or Venus that you can find—and hold up tightly!

★ ★ ★

TIME WARP...

LARRY BLAKE stared ruefully at the complicated maze that confronted him. This amplifier was beauty! But the designers couldn't have made it more complicated if they'd tried.

He picked up the probe of the vacuum tube voltmeter and touched it to point six on a tube socket. There was a hiss and the arcing of electricity.

"Damn!" Larry said vehemently, "Now I've really wrecked it!" And the amplifier had to be ready for tomorrow's runs. Dr. Weston would blow his stack. Larry yawned and stared out the window into the darkness. The lab was perfectly quiet and no one was around. Why did he have to stay around tonight?

Oh well, he mused philosophically, the job's got to be done. He turned to pick up the voltmeter probe once more when something on the bench caught his eye. He'd

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

have sworn it wasn't there before! He looked at the gray metal case. Now who put an oscilloscope here? He got up from the stool and walked over to the gadget.

The minute he got close to it he saw something was wrong. It looked like a big-eyed oscilloscope in one respect—and yet it was different. The metal appeared so shiny! Almost as if it were emitting light itself—a soft diffused radiation that seemed so pleasant.

But it hadn't been there a minute before. Larry scratched his head. What the devil was happening around here? He shook his head—must be getting punchy. I'm losing my grip, he thought.

He was about to turn back to the amplifier again when something made him look closer at the metal box. He scrutinized it closely. There was some printing on the cover. Larry read: "El-analyzer". That was all. Curiosity got the better of him. He lifted the lid which popped open in a peculiar way in spite of the fact that there seemed to be no clips or clasps.

A small glass plate stared up at him and two metallic-looking cables lay coiled to one side of the plate. Larry felt them. They had the oddest rubbery feeling—and they were tipped with metal.

Larry stepped back. This was gag! Well, I'll show them, he said mentally. But there didn't seem to be anything fake about the thing. Gingerly he picked up the instrument—it was amazingly light—and brought it alongside the analyzer. He took out one of the cables—picking at random and touched it to the high voltage source on the amplifier.

Then his eyes nearly popped out of his head.

The glass plate softly glowed: "Hi-vol—453.2 v.—.01% ripple"—it said in clear black letters almost like type yet wavery like light!

This thing was a real analyzer—and a honey!

Larry touched the cable tip to the circuit which had just flashed and which he was certain he'd blown. You could even see the glassy deposit on the side of the fuse. The plate lit up again. This time it said: "Capac groonded-burn three—fus now ookey—"

And in that instant it seemed to Larry as if the fuse moved slightly—and then it was whole!

"My God!" Larry said, "what have I got here? I better call Dr. Weston. This thing is magic!"

He picked up the phone and dialed Ke-4-J202. Holding the phone he turned and kept his eyes on the strange instrument while the phone buzzed. Finally he got an answer. The sleepy voice of Dr. Weston said: "Hello? Weston speaking."

"Hello, Doc," Larry said, "say, I've got the craziest gadget down here. It's some kind of a circuit analyzer. Do you know about it?"

"Where is it?"

"Right on the bench he—" Larry broke

GYPSY WITCH
FORTUNE TELLING
PLAYING CARDS

Fascinating cards, colorfully illustrated with principal meanings clearly printed on each card. Simplifies reading "fortunes" for yourself and friends. Beautifully printed by America's largest card manufacturer. Pack of 53 cards, special instruction chart only $1.60 postpaid. C.O.D.'s plus charges.

Sold for amusement only.-LAMON PRODUCTS CO., 4861 Wabansia Ave., Dept. 115, Chicago 39, Illinois.

All New Pictures Never Before Offered!
BEAUTIFUL FULL COLOR 2 x 2 SLIDES
OF HOLLYWOOD ARTISTS MODELS

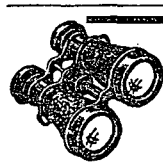
SEND NO MONEY! Set of 12 different slides sent on approval. Pay for only those you keep at 3 slides for $1.00. Stereo slides with viewer (cash with order), set of 6 for $2.50.

SID KLEIN, Inc., 7916 Beverly Blvd., Los Angeles 48, Calif.

WANT TO BE A MERCHANT SEAMAN?
$195 APP. AV. MONTHLY OR MORE PLUS FOOD OVERTIME LODGING
STARTING PAY
TRAVEL - ADVENTURE
CAREER AT SEA ON AMERICAN SHIPS
NO EXPERIENCE REQUIRED. EX-SERVICEMEN MAY QUALIFY FOR SHIP'S OFFICERS
For Information WRITE TODAY to:
MERCANTILE INFORMATION BUREAU
Box 6954-P Baltimore 16, Md.

INVENTORS
If you believe that you have an invention, you should find out how to protect it. We are registered Patent Attorneys. Send for copy of our Patent Booklet "How to Protect Your Invention," and an "Invention Record" form. No obligation. They are yours for the asking.
McMORROW, BERMAN & DAVIDSON
Registered Patent Attorneys
186-G Victor Building, Washington 1, D. C.

Learn every amazing trick from the man who has trained experts! Brute strength, giant size or bulging muscles will not beat you when the COMMANDING knowledge of "POLICE JIU JITSU" is yours!
A complete course, easy to read and master in one illustrated volume . . . Just pin $1 to this ad and We will send Police Jiu Jitsu to you POSTPAID.
Satisfaction Guaranteed or money refunded.
BROOKS PUBLISHING CO.
56 W. 24th St., N. Y. 10, N. Y.



BINOCULARS
MADE IN GERMANY
Precision ground lenses and center focusing give exact eye adjustment, large 42 MM objectives. 8 mile range. Strongly built. Weight 10 oz. Extra wide field of view. Satisfaction guaranteed or money refunded. Send check or money order..... $3.95 Postpaid
CRITERION CO., Dept. DB-6
438 Asylum St. Hartford 3, Conn.

BE A DETECTIVE
WORK HOME or TRAVEL. Experience unnecessary.
DETECTIVE Particulars FREE. Write
GEO. Z. WAGNER, 125 W. 86th St., N.Y.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Do You Want to Become a Hequaz Numerologist?"

Something That Will Command

BIG MONEY

At completion of your studies you are awarded a certificate. No one can use this system of NUMEROLOGY without the certificate.

ACT NOW

Enroll and become one of our successful graduates.

Write for full particulars. About the "Hequaz System of Numerology."

HEQUAZ CORRESPONDENCE SCHOOL OF NUMEROLOGY

268 North State St., Dept. I, Marion, Ohio

YOU CAN LEARN

CARTOONING IN ONE HOUR!

PAY ONLY $1.

MONEY-BACK GUARANTEE! Get THE EASY WAY TO CARTOONING, by Lawrence Lariar. Start drawing girls, action shots, animals, *in one hour, or your money back!* Pin $1 to this ad. Mail to Crown Publishers, Dept. C-2, 419 4th Ave., N. Y. 16.

HOLLYWOOD Model of the Month

A beautiful Hollywood Model is selected each month . . . and portrayed in 5 glamorous color poses. Send for "Miss December" Now!

Set of 5 Color Slides $2.00
Set of 5 Fine Grain Negatives 1.00

Address all orders to

JAMES J. BRADFORD

1302 Broadway Burbank, Calif.

BOOKLETS. The kind grownups like. Each one of these booklets is POCKET SIZE, also contains 8 ILLUSTRATIONS, and is full of fun and entertainment. 12 of these joke booklets, ALL DIFFERENT, shipped prepaid upon receipt of $1.00, or 24 BOOKLETS, ALL DIFFERENT, shipped prepaid for $2, cash or money order. No orders sent C.O.D. Print name and address and mail to: Treasure Novelty Co., Dept. 56-P, 2 Allen St., New York 2, N. Y.

off abruptly. There was a weird shimmering before his eyes and the instrument slowly faded from view.

"It just disappeared!" he shouted.

"What did you say?" Weston queried.

"I say it just vanished. It's gone. I don't get it..."

Forget it, Larry," Dr. Weston said. "Be sure to fix the analyzer—and Larry—"

"Yes?" Larry managed feebly.

"—Don't bother me with your nightmares. Keep on the ball."

Larry sat down weakly as he hung up the phone and stared at the space where the instrument had been. "I wonder," he said, "I wonder..."

...and three thousand years away, the cold metallic voice of the Mekaniker said to the frightened human slave: "I told you not to use the stasis. That's the second time we've missed an instrument. It's a good thing for you that the power was on. Ah, here it is now. Don't let this happen again or I'll see you taken from the Labs and put into the mines. You wouldn't like that, would you?"

And the furtive crouching figure in the vast metallic room shivered and said: "No Mekaniker—I will be careful. Please...I will be very careful with the Mekaniker tool, very careful..."

★ ★ ★

REMOTE SUPERNOVA

IN SPITE of all the difficulties experienced with getting the new two hundred inch reflector at Mount Palomar into operation, it has already made some valuable contributions to astronomy. When it is perfected and all the "bugs" are ironed out, we can hope for great things.

Recently with this instrument, the most distant supernova was discovered. Fifty million light years away, a supernova flared into being in the Coma galaxies, and even at that tremendous distance recorded itself on a photographic plate beneath the mirror of the two hundred inch-er.

Had this supernova been as near as some of the ethers which have been discovered it would have appeared as bright as the Moon! The whole field of supernovae is interesting and to this date origins haven't yet been satisfactorily explained.

A nova is essentially a star which for no apparent reason flares into extreme brilliance. Theoretically this is due to the disruption of the internal gravity of the star by the pressure of its own atoms, but of course this is unconfirmed. The trigger that sets off this unbalance is completely unexplained. A supernova is simply the same thing on a vastly greater scale. The hypothesis that we may be witnessing the disruption of a star, or even a planet by intelligent entities using atomic energy, while completely fantastic, still has an element of plausibility to it. Strange things can happen. Witness the present conversations on the atomic and the hydrogen bombs!

PRINTED IN U.S.A.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

What Happened to the Last Woman on Earth?

Stories Stranger Than Your Wildest Dreams . . .

So Startling They Can Only Be—"From Off This World"

EDITED BY LEO MARGULIES & OSCAR J. FRIEND

What Does A Writer Do With The Literary Corkscrew?
How Did A Brain Live 10,000 Years?
What Were The Singing Flames?
What Were The Strange Dream Beasts Of Mars?
What Man-Like Creatures Live In The Depths Of The Earth?

NOW—you, too, can thrill to the romance and mystifying splendor of the land of the future. At last—The Hall of Fame Classics. Chosen from the gems of Science-Fiction Stories that have been written in the past twenty-five years. You will be amazed at the vast fields of imagination opened to your eyes. As you read these pages a panorama of the future unfolds as vivid as life itself. And it's yours to read FREE, if you wish!

The Answers To Questions You Have In The Back of Your Mind

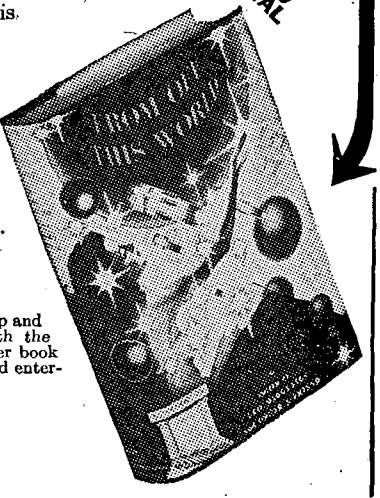
Rave Reviews from the Science Fiction Bookshelf

". . . this volume will almost certainly become a must, not only for the science fiction neophytes but for veteran readers as well."

"These stories are important to anyone truly interested in science fiction in a degree far beyond their intrinsic merit, which is great. The stories are . . . milestones in the progress of the field from the somewhat primitive 'catastrophe' tale of fifteen to twenty years ago to the much more evolved . . . stories of the present day."

"If you want to know how science fiction got the way it is—and if you want a record of its growth which is also fascinating reading—*you'll be putting in your order for FROM OFF* THIS WORLD. It is, for lovers of Science-Fiction of all degree, a must.

Close your eyes, try to picture life in the future—in different worlds, then turn the pages of "From Off This World" and there it is in Black and White. You are no longer a present-day terrestrial human being—you'll feel the strange belly-shaking pitch of a space ship—the thrill of conquest when you see the weird, unearthly, extra-dimensional worlds that exist side-by-side with our own.



Leaves You Breathless

Your hair will stand on end as the chills go up and down your spine. Your eyes will pop with the startling wonder of what you read. No other book can offer you the variety of chills, thrills and entertainment as —"From Off This World."

CONTENTS

AN ANTHOLOGY OF THE GREATEST WRITERS IN SCIENCE FICTION

FROM OFF THIS WORLD

BOOK 1

The Last Woman by Thomas G. Gardner
The Man Who Evolved by Edmond Hamilton
The World Without by Benson Herbert
The Green Torture by A. Rowley Hilliard
The Literary Corkscrew by David H. Keller, M.D.
Mars by C. Schuyler Miller
[illegible] Brain by A. G. Strangland
The City of Singing Flame by Clark Ashton Smith
Beyond the Singing Flame by Clark Ashton Smith

BOOK 2

The Eternal Man by D. D. Sharp
Hornets of Space by H. F. Starzl
The Cubic City by Louis D. Tucker
A Martian Odyssey by Stanley G. Weinbaum
Valley of Dreams by Stanley G. Weinbaum
Through the Purple Cloud by Jack Williamson
The Microscopic Giants by Paul Ernst
When the Earth Lived by Henry Kuttner
Conquest of Life by Eando Binder

FREE 7-DAY TRIAL

SEND NO MONEY

Pay postman *only* $2.95 (plus postage). Read this amazing book from cover to cover. If it does not thrill you, return book within 7 days for immediate refund. What can be fairer—the risk is ours. Hurry —Order NOW from Merlin Press, Inc., Dept. Z12, 309 Lafayette Street, New York 12, N. Y.

MERLIN PRESS, Inc., Dept. Z12
309 Lafayette St.
New York 12, N. Y.

FREE Examination Coupon

Please send me a copy of "From Off This World". I will pay postman $2.95 (plus postage). If not thrilled within 7 days, I will return the book for immediate refund.

NAME.....

ADDRESS.....

CITY & ZONE.....STATE.....

☐ Save postage. Send payment NOW. (Check or money order.) We then pay postage. Money back if not delighted.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"THIS WISDOM MUST DIE!"

Truths That Have Been Denied Struggling Humanity

FOR every word that has left the lips of bishops or statesmen to enlighten man, a thousand have been withheld. For every book publicly exposed to the inquiring mind, one hundred more have been suppressed—*damned to oblivion*. Each year of progress has been wilfully delayed centuries. Wisdom has had to filter through biased, secret sessions or ecclesiastical council meetings, where high dignitaries of state and church alone proclaimed what man should know.

Are you prepared to demand the hidden facts of life? Will you continue to believe that you are not capable of weighing the worth of knowledge that concerns your personal freedom and happiness? Realize that much that can make your life more *understandable* and *livable* has been left unexplained or intentionally destroyed. At first by word of mouth only, and *now* by private discourses, are *revealed* those truths which secret brotherhoods preserved in ancient temples and hidden sanctuaries, from those who sought to selfishly deprive humanity of them.

THIS *free* BOOK OF EXPLANATION

Let the Rosicrucians, one of these ancient brotherhoods of learning, tell you about these amazing truths, and explain how you, too, like thousands of others, may now use them to enjoy the fullness of life. The Rosicrucians, (not a religious organization) invite you to use the coupon opposite and receive the FREE copy of the fascinating, Sealed Book, with its startling tale of *self help*.

The ROSICRUCIANS (AMORC)

SAN JOSE, CALIFORNIA, U. S. A.

Scribe W.W.V.
THE ROSICRUCIANS (AMORC)
Rosicrucian Park, San Jose, California, U.S.A.

Please send me your FREE Sealed Book. I am sincerely interested in learning how I may receive these long-concealed facts of life.

Name.....

Address.....

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED